



## REGIONAL TRANSPORTATION COMMISSION CITIZENS MULTIMODAL ADVISORY COMMITTEE

### MEETING AGENDA

**Wednesday, October 7, 2026, at 5:30 p.m.**  
**MEETING TO BE HELD VIA ZOOM ONLY**

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- I. This meeting will be held via Zoom. There will be no physical location. For those requiring hearing or speech assistance, contact Relay Nevada at 1-800-326-6868 (TTY, VCO or HCO).
  - II. Members of the public may attend the meeting via Zoom at:  
<https://us02web.zoom.us/j/86522912412?pwd=tvM8fOdainLygb96Egw80ryBw3flbB.1>  
You may also participate by telephone at 1-253-205-0468 or 1-669-444-9171 (Meeting ID: 865 2291 2412, Meeting passcode: 476606). To provide public comment during the meeting via Zoom, please make sure your computer or device has a working microphone. Use the "Chat" feature to submit a request to make a comment. When the time comes to make public comments, you will be invited to speak. If you wish to provide public comment before the meeting, please contact RTC Agency Services at 1-775-348-0171 prior to 4:00 p.m. on the day before the meeting and provide the telephone number you will be calling from as well as the item(s) you would like to comment on. When the time comes to make public comments, you will be invited to speak.
  - III. Members of the public not attending the meeting but would like to provide public comment in advance can do so by one of the following methods: (1) emailing comments to: [rtcpubliccomments@rtcwashoe.com](mailto:rtcpubliccomments@rtcwashoe.com); or (2) leaving a voicemail (limited to three minutes) at 1-775-348-0171. Comments received prior to 4:00 p.m. on the day before the meeting will be entered into the record.
  - IV. The supporting materials for the meeting can be found at <https://rtcwashoe.com/news/meetings-agendas/>. If you need to request a copy of the supporting materials, please contact RTC Agency Services by phone at 1-775-348-0171 or by email at [agencysservices@rtcwashoe.com](mailto:agencysservices@rtcwashoe.com).
  - V. RTC staff will make reasonable efforts to assist and accommodate individuals with disabilities. Please call RTC Agency Services at 1-775-348-0171 in advance so that arrangements can be made.
  - VI. RTC staff will make an audio and video recording of the meeting. The recording will be a public record. Committee members and members of the public who do not wish to be shown on the video should turn their cameras off during the meeting.
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### **1. Roll Call/Call to Order**

- 2. Verbal Instructions required by Assembly Bill 219 (2023):** RTC staff will read the following before the first public comment period:

*"If you are participating via Zoom, to provide public comment during the meeting please make sure your computer or device has a working microphone. Use the "Chat" feature to submit a request to make a comment. When the time comes to make public comments, you will be invited to speak.*

*If you are participating by telephone, to provide public comment you should have contacted RTC Agency Services prior to 4:00 p.m. yesterday and provided the telephone number you would be calling from as well as the item(s) you wanted to comment on. When the time comes to make public comments, you will be invited to speak."*

- 3. Public Comment:** Public comment may pertain to matters both on and off the agenda. Comments are to be made to the Committee as a whole and not to individual Committee members or staff. Committee members may provide public comments. Public comment is limited to three (3) minutes.

4. **Approve the August 5, 2026, Committee Meeting Minutes** (*For Possible Action*)
5. **Information and Discussion Items** (*No Action*): The purpose of the Committee is to provide (1) information, advice and recommendations regarding certain regional planning documents, proposed major transit service changes, and proposed transit fare policy changes as part of RTC's Public Participation Plan, and (2) information and advice on benches, shelters and transit stops in accordance with Assembly Bill 214 (2023). RTC staff selects and presents items that are intended to further that purpose. Following a presentation by RTC staff, Committee members will have the opportunity to ask questions, discuss and provide feedback pertaining to the item.
  - ITEM 5.1** Provide information, advice and recommendations regarding the EV Roadshow Approved
  - ITEM 5.2** Provide information, advice and recommendations RTIP Amendment No. 4
  - ITEM 5.3** Provide information, advice and recommendations on the Draft Rock Corridor Study Report
  - ITEM 5.4** Provide information, advice and recommendations on the NNP's 3 and 4
6. **Approve the Election of a Chair and Vice Chair to Serve from October 7, 2026, until June 30, 2027** (*For Possible Action*)
7. **RTC Staff Announcements**
8. **Public Comment:** Public comment may pertain to matters both on and off the agenda. Comments are to be made to the Committee as a whole and not to individual Committee members or staff. Committee members may provide public comments. Public comment is limited to three (3) minutes.
9. **Adjournment**



**REGIONAL TRANSPORTATION COMMISSION  
CITIZENS MULTIMODAL ADVISORY COMMITTEE  
MEETING MINUTES  
WEDNESDAY AUGUST 5, 2026**

**CMAC MEMBERS PRESENT**

Panah Stauffer (Vice Chair)  
Juan Martinez

Sue-Ting Chene  
Damien Cole

**CMAC MEMBERS ABSENT**

Michael Lansborough  
Kelly Orr

Sierra Henderson

**RTC STAFF**

Marquis Williams  
Graham Dollarhide  
Shay League

Alex Cruz  
Sai Sun  
Lolita Davis

**CMAC GUESTS**

Doralee Martinez  
Phil Corbitt  
Justin Haghighi

Member of the Public  
Member of the Public  
Member of the Public

**1. ROLL CALL/CALL TO ORDER**

The Citizens Multimodal Advisory Committee (CMAC) meeting was conducted as a Zoom Meeting. The meeting was called to order at 5:33 p.m. by Marquis Williams.

**2. VERBAL INSTRUCTIONS REQUIRED BY ASSEMBLY BILL 219 (2023)**

RTC staff read the instructions required for participating via Zoom and participating via telephone.

**3. PUBLIC COMMENT**

Damien commented on a public walkway that extends from University Way to Lake Street. He researched the walkway and found that it was built by the city and funded by the taxpayers in 1972 and had been established through an agreement with property owners. This agreement was binding on current and future landowners.

Damien stated he shared this information with various city officials. Damien stated he identified code violations related to an adjacent AT&T walkway that had been built in 1971. The gates and fences there are required to remain open to serve as a transportation corridor for the Truckee River Path. The city has the authority to remove obstructions and treat them as nuisances, similar to obstructions on public sidewalks.

Panah commented on CMAC recruitment and requested that a public notice regarding recruitment opportunities be made available and shared with the committee. She emphasized that publicly posting the notice would promote transparency, broaden outreach, and support the integrity of the committee.

Doralee Martinez asked RTC staff if a Bill Draft Request exist for the upcoming legislative session, it be included on the agenda for the next meeting and shared with the committee so that members could be informed.

**4. APPROVE THE JUNE 3, 2026, AND JULY 1, 2026, MEETING MINUTES (*For Possible Action*)**

The CMAC June 3, 2026, and July 1, 2026, meeting minutes were approved as submitted.

**5. INFORMATION AND DISCUSSION ITEMS.**

**ITEM 5.1: PROVIDE INFORMATION, AND ADVICE, REGARDING THE CONSTRUCTION, INSTALLATION AND MAINTENANCE OF BENCHES, SHELTERS AND TRANSIT STOPS FOR RTC PASSENGERS.**

Sai Sun, RTC Sr. Transit Planner, gave a presentation on the construction, installation and maintenance of benches, shelters and transit stops for RTC passengers.

Damien asked whether the proposed bus stop improvements were being coordinated with the Neighborhood Network Plans and noted concerns regarding pedestrian and bicycle connectivity to the bus stops, particularly in the McCarran area, where surrounding development and existing infrastructure presented connectivity challenges. Sai Sun, RTC Sr. Transit Planner, clarified that the proposed improvements were limited to existing bus stops and concrete pads.

Damien commented on bicycle and pedestrian access in the area saying he previously contacted Reno Public Works regarding discrepancies with existing bicycle lanes and signage, he stated that some bicycle lane signs had subsequently been removed because the lanes were reportedly not recognized as official bicycle lanes. He further expressed concern that the separated bicycle path on the east side of McCarran, combined with the lack of pedestrian crossings, created difficulties for bicyclists and pedestrians attempting to access the bus stops from surrounding residential areas. Damien emphasized the importance of coordinating bicycle and pedestrian infrastructure with transit access and asked whether future planning could address safe and direct connections to the bus stops from surrounding areas.

Alex Cruz, RTC Sr. Transit Planner with RTC, clarified the Neighborhood Network Plan (NNP), which focus on specific corridors and areas, is currently being worked on. Alex explained that RTC staff participates in planning discussions to ensure coordination with transit services and bus stops are considered as part of the planning process. Alex could not confirm during the meeting whether McCarran was included as a specific project or corridor within the Neighborhood Network Plan but noted that RTC staff would continue to monitor the area. Alex explained that the plan would focus on selected corridors rather than improvements to every roadway within a neighborhood. Marquis Williams, RTC Sr. Planner acknowledged that McCarran and the connectivity issues is included in the plan, not in the near future but further out in the plan.

Panah suggested that RTC consider opportunities to develop partnerships with private landowners, particularly shopping center owners, to improve pedestrian and bicycle safety. She noted that several large shopping centers in Reno were not pedestrian-friendly despite being frequently used by pedestrians and bicyclists. Panah suggested that relatively simple improvements could help people safely navigate large parking lots and access shopping centers from locations other than designated ADA-accessible entrances.

Panah also asked Sai to clarify the endpoints of the Bus Rapid Transit (BRT) improvements along Virginia Street. Sai responded that the BRT improvements were part of an RTC engineering project and stated that project information was available on the RTC website. <https://rtcwashoe.com/project/virginia-line-brt-improvements/>

## **ITEM 5.2: PROVIDE INFORMATION, AND ADVICE, REGARDING MODIFICATIONS TO RTC ACCESS AS PART OF THE MOVE MORE WITH RTC PLAN (FORMERLY TOPS).**

Alex Cruz, RTC Sr. Transit Planner, gave a presentation on the modifications to RTC ACCESS as part of the Move More with RTC plan (formerly TOPS).

Juan Martinez asked how RTC ACCESS clients would be notified that they would be able to ride RTC RIDE free of charge. Alex Cruz, RTC Sr. Transit Planner, responded that ACCESS clients will see notices on ACCESS buses and receive notifications through RTC Connect. Alex stated that the notification plan had not yet been finalized but, pending approval, RTC would have more than a month to inform clients. He added that RTC planned to begin sharing the information as soon as possible through multiple communication methods to ensure broad awareness.

## **6. RTC STAFF ANNOUNCEMENTS**

Marquis Williams, RTC Sr. Transportation Planner, provided an update on committee recruitment and stated that RTC was continuing its efforts to recruit additional members to fully staff the committee. He noted that the committee's policies and procedures established a membership range of 8 to 15 members and that the committee currently had approximately 6 or 7 members. RTC was therefore seeking to recruit at least two additional members.

Marquis Williams provided an update on upcoming RTC planning studies. He stated that Neighborhood Network Plans for Damonte Ranch and West Reno were moving forward, with a consultant selected and negotiations underway. The projects were anticipated to begin in October. Marquis also noted that a Fourth Street study in Sparks and several other planning studies were forthcoming.

Marquis stated that RTC anticipated conducting an updated River Path study within the next several years. The study would examine future improvements, establish standards, and promote consistency along the path. He noted that the study could provide an opportunity to address concerns previously raised regarding the AT&T property. Damien stated that the AT&T agreement contained a two-year “use-it-or-lose-it” provision related to the closure of the fence. He noted that the fence on the Schenk property had reportedly been installed approximately six months earlier, leaving approximately a year and a half to address the issue. Marquis acknowledged the concern.

Panah asked how RTC planned to publicize the upcoming Neighborhood Network Plan development process. Marquis explained that RTC had previously used social media, email press releases, presentations to CMAC, and outreach through CMAC members, the Technical Advisory Committee, and city staff. He stated that RTC was also considering mailers for the upcoming plans to reach residents directly and encourage participation in community surveys. He emphasized RTC’s goal of maintaining a transparent planning process and avoiding surprises for residents, council members, and city staff.

Marquis added that RTC planned to coordinate with homeowners associations in the Damonte Ranch area and increase outreach through local elementary, middle, and high schools by working with school principals and their networks.

Panah recommended expanding outreach through the area’s master and sub-homeowners associations, noting that HOAs could distribute information through email blasts at little or no cost. She also recommended utilizing the South Valleys Library through its bulletin boards, newsletter, event calendar, and other communication channels to promote public meetings, surveys, and opportunities for community feedback. She suggested distributing flyers at neighborhood businesses and other prominent locations. She also recommended using online platforms such as Nextdoor and Reddit, where appropriate, and noted that CMAC members could assist with sharing information through their networks.

## **7. PUBLIC COMMENT**

Dora Martinez commented on the accessibility of RTC bus stop platforms in relation to newer buses. She noted that individuals who use wheelchairs, walkers, white canes, and other mobility aids may have different accessibility needs and experiences.

Alex Cruz clarified that the issue involved several Bus Rapid Transit (BRT) stops that had originally been constructed for buses with a different ride height. He explained that approximately seven or eight BRT platforms required modifications to lower the sidewalk platforms by several inches so that ramps on the current buses could deploy properly.

Alex stated that the issue was limited to those particular BRT stops and that modifications had already been completed at some locations. He added that RTC would continue to consider ADA accessibility as part of future projects affecting bus stops, including larger projects along Fourth and Fifth Streets.

Dora encouraged RTC to engage members of the disability community when evaluating or modifying bus stop platforms. She offered the assistance of Reno Advisory Accessibility Board members and others with lived experience to test the platforms and ensure they were not only ADA compliant but also practical and accessible for users with varying mobility and visual accessibility needs.

## **8. ADJOURNMENT**

The meeting adjourned at 6.18 p.m.



## **REGIONAL TRANSPORTATION COMMISSION**

*Metropolitan Planning • Public Transportation & Operations • Engineering & Construction*

Metropolitan Planning Organization of Washoe County, Nevada

**MEETING DATE:** October 7, 2026

**AGENDA ITEM 5.1**

To: Citizens Multimodal Advisory Committee

From: Paul Nelson, Government Affairs Officer

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### **SUBJECT**

EV Fee Informational

### **FOR INFORMATION AND DISCUSSION**

EV Fee Informational

### **BACKGROUND AND DISCUSSION**

Paul Nelson will give a presentation about WC-1, the ballot question regarding a possible registration fee on electric and hybrid vehicles. The presentation includes studies, polls, and funding issues at RTC. It details where RTC's funding comes from and how that is changing as more people buy electric vehicles, hybrids, and better fuel-efficient cars.



## **REGIONAL TRANSPORTATION COMMISSION**

*Metropolitan Planning • Public Transportation & Operations • Engineering & Construction*

Metropolitan Planning Organization of Washoe County, Nevada

**MEETING DATE:** October 7, 2026

**AGENDA ITEM 5.2**

To: Citizens Multimodal Advisory Committee

From: Graham Dollarhide, Transportation Planning Manager

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### **FOR INFORMATION AND DISCUSSION**

Provide information, advice, and recommendations regarding the proposed Amendment No. 4 to the FFY 2025-2029 Regional Transportation Improvement Program (RTIP).

### **BACKGROUND AND DISCUSSION**

Amendment No. 4 is required to add and update projects in the RTIP. Both projects included in the amendment are led by the Nevada Department of Transportation (NDOT).

A separate air quality analysis for the proposed amendment was not required as the added and amended projects are either exempt from transportation conformity requirements (pursuant to 40 CFR 93.126) or have already complied with this requirement and the associated amendment does not involve a change to the project scope. A corresponding amendment to the Regional Transportation Plan (RTP) is not required, according to the criteria established in RTC's Public Participation Plan (PPP).

A complete list of the projects meeting the amendment threshold and thus requiring formal action, as well as a brief description of the changes to each project, are as follows:

- I-80 Verdi Commercial Vehicle Inspection Station Upgrades – amendment to increase total project funding
- I-80, WA, Mill & Fill McCarran to Vista – new project to conduct pavement preservation on a segment of Interstate 80

The public comment period for the amendment began on Wednesday, September 23, 2026, and will close on Tuesday, October 13, 2026. A public hearing will be held at the RTC Board meeting on Friday, October 16, 2026.

Attachment



## Transportation Improvement Program Fiscal Year 2025 - 2029

2 Projects Listed

WA20250039 Plan Revision: 26-10

STATUS Project Changed

Federal

Name: I-80 VERDI COMMERCIAL VEHICLE INSPECTION STATION UPGRADES

Scope: Upgrade inspection facility with cameras, data readers, commercial static scale, violation vehicle parking, relocate WIM station for better NHP enforcement

Project Type: Freight

County: Washoe

NDOT District: District 2

Limits: From 0.5M W OF CA/NV STATE LINE to INSPECTION STATION. Milepost begins at 0.5 end at 4.4. Distance (mile): 3.9

| Fiscal Year       | Revenue Source           | PE        | ROW      | CON         | Other | Total       |
|-------------------|--------------------------|-----------|----------|-------------|-------|-------------|
| 2026              | STATE HIGHWAY FUND       | \$105,000 | \$0      | \$0         | \$0   | \$105,000   |
| 2026              | NHPP                     | \$0       | \$14,250 | \$0         | \$0   | \$14,250    |
| 2026              | STATE MATCH - NV         | \$0       | \$750    | \$0         | \$0   | \$750       |
| 2027              | NATIONAL HIGHWAY FREIGHT | \$0       | \$0      | \$7,362,500 | \$0   | \$7,362,500 |
| 2027              | STATE MATCH - NV         | \$0       | \$0      | \$387,500   | \$0   | \$387,500   |
| 2028              | NATIONAL HIGHWAY FREIGHT | \$0       | \$0      | \$237,500   | \$0   | \$237,500   |
| 2028              | STATE MATCH - NV         | \$0       | \$0      | \$12,500    | \$0   | \$12,500    |
| <2025             | Prior                    | \$0       | \$0      | \$0         | \$0   | \$0         |
| >2029             | Future                   | \$0       | \$0      | \$0         | \$0   | \$0         |
| 2025 - 2029 TOTAL |                          | \$105,000 | \$15,000 | \$8,000,000 | \$0   | \$8,120,000 |
| All Years Total   |                          | \$105,000 | \$15,000 | \$8,000,000 | \$0   | \$8,120,000 |

MPO: RTC Washoe

Lead Agency: Nevada DOT

Transportation Improvement Program Fiscal Year 2025 - 2029

Previously Approved Version

WA20250039    Plan Revision: 26-07

Name: I-80 VERDI COMMERCIAL VEHICLE INSPECTION STATION UPGRADES

Scope: Upgrade inspection facility with cameras, data readers, commercial static scale, violation vehicle parking, relocate WIM station for better NHP enforcement

Project Type: Freight

County: Washoe

NDOT District: District 2

Limits: From 0.5M W OF CA/NV STATE LINE to INSPECTION STATION. Milepost begins at 0.5 end at 4.4. Distance (mile): 3.9

| Fiscal Year       | Revenue Source           | PE        | ROW      | CON         | Other | Total       |
|-------------------|--------------------------|-----------|----------|-------------|-------|-------------|
| 2026              | NATIONAL HIGHWAY FREIGHT | \$0       | \$0      | \$5,054,000 | \$0   | \$5,054,000 |
| 2026              | STATE MATCH - NV         | \$0       | \$0      | \$266,000   | \$0   | \$266,000   |
| 2026              | NHPP                     | \$0       | \$14,250 | \$0         | \$0   | \$14,250    |
| 2026              | STATE MATCH - NV         | \$0       | \$750    | \$0         | \$0   | \$750       |
| 2026              | STATE HIGHWAY FUND       | \$105,000 | \$0      | \$0         | \$0   | \$105,000   |
| 2028              | NATIONAL HIGHWAY FREIGHT | \$0       | \$0      | \$237,500   | \$0   | \$237,500   |
| 2028              | STATE MATCH - NV         | \$0       | \$0      | \$12,500    | \$0   | \$12,500    |
| <2025             | Prior                    | \$0       | \$0      | \$0         | \$0   | \$0         |
| >2029             | Future                   | \$0       | \$0      | \$0         | \$0   | \$0         |
| 2025 - 2029 TOTAL |                          | \$105,000 | \$15,000 | \$5,570,000 | \$0   | \$5,690,000 |
| All Years Total   |                          | \$105,000 | \$15,000 | \$5,570,000 | \$0   | \$5,690,000 |

MPO: RTC Washoe

Lead Agency: Nevada DOT

Transportation Improvement Program Fiscal Year 2025 - 2029

|            |                      |        |             |         |
|------------|----------------------|--------|-------------|---------|
| WA20260044 | Plan Revision: 26-10 | STATUS | New Project | Federal |
|------------|----------------------|--------|-------------|---------|

Name: I-80, WA, MILL & FILL MCCARRAN to VISTA  
Scope: I-80, WA, MILL & FILL MCCARRAN to VISTA

Project Type: Preservation

County: Washoe

Limits: From MCCARRAN to VISTA. Milepost begins at 17.36 end at 19.92. Distance (mile): 2.56

NDOT District: District 2

| Fiscal Year       | Revenue Source   | PE  | ROW | CON          | Other | Total        |
|-------------------|------------------|-----|-----|--------------|-------|--------------|
| 2027              | NHPP             | \$0 | \$0 | \$9,025,000  | \$0   | \$9,025,000  |
| 2027              | STATE MATCH - NV | \$0 | \$0 | \$475,000    | \$0   | \$475,000    |
| 2027              | STBG FLEX        | \$0 | \$0 | \$475,000    | \$0   | \$475,000    |
| 2027              | STATE MATCH - NV | \$0 | \$0 | \$25,000     | \$0   | \$25,000     |
| <2025             | Prior            | \$0 | \$0 | \$0          | \$0   | \$0          |
| >2029             | Future           | \$0 | \$0 | \$0          | \$0   | \$0          |
| 2025 - 2029 TOTAL |                  | \$0 | \$0 | \$10,000,000 | \$0   | \$10,000,000 |
| All Years Total   |                  | \$0 | \$0 | \$10,000,000 | \$0   | \$10,000,000 |

MPO: RTC Washoe

Lead Agency: Nevada DOT



## **REGIONAL TRANSPORTATION COMMISSION**

*Metropolitan Planning • Public Transportation & Operations • Engineering & Construction*

Metropolitan Planning Organization of Washoe County, Nevada

**MEETING DATE:** October 7, 2026

**AGENDA ITEM 5.3**

To: Citizens Multimodal Advisory Committee

From: Shay League, Senior Transportation Planner

### **FOR INFORMATION AND DISCUSSION**

Receive a presentation on the draft Rock Boulevard Corridor Study.

### **BACKGROUND AND DISCUSSION**

The purpose of the Rock Boulevard Corridor Study is to identify safety and mobility improvements for people who walk, bike, take transit, drive, and move freight along the corridor between North McCarran Boulevard and the Truckee River. The recommended improvements address traffic flow and truck movement, safety, and the accessibility of transit and active transportation.

The study launched in September 2025, when RTC's Board of Commissioners approved a contract with consultant GCW. The City of Sparks prioritized this study by nominating it for the Unified Planning Work Program (UPWP). The UPWP is a two-year program for planning activities, currently covering Fiscal Years (FY) 2026 and 2027.

The Rock Boulevard Corridor Study recommends 15 improvements along the corridor. Key improvements include:

- Safety and accessibility spot improvements at multiple locations, including speed management adjacent to Maxwell Elementary School;
- Sidewalk widening north of Oddie Boulevard;
- Minor I-80 interchange modifications to address congestion ahead of major upcoming NDOT improvements; and,
- A multi-use path connecting Victorian Avenue to the Truckee River Path.

The current estimate for all recommended improvements is approximately \$46.8 million. This estimate includes \$3.5 million for spot improvements, \$15 million for sidewalk widening, \$5.3 million for I-80 interchange modifications, and \$23 million for a multi-use path.

The Rock Boulevard Corridor Study is available for public review and comment at [rtcwashoe.com/rock-boulevard-corridor-study/](https://rtcwashoe.com/rock-boulevard-corridor-study/) from September 30, 2026 through October 20, 2026. The draft study is scheduled for presentation at the October 16, 2026 RTC Board meeting. Final study approval is anticipated at the November 20, 2026 RTC Board meeting.



# ROCK BOULEVARD CORRIDOR STUDY

October 2026 (Draft)

**GCV**  
ENGINEERS & SURVEYORS

**Parametrix**



## EXECUTIVE SUMMARY

The Rock Boulevard Corridor Study was conducted to identify transportation improvements that enhance safety, mobility, accessibility, and connectivity for all users of the corridor. Rock Boulevard is a critical north-south arterial in the City of Sparks that connects residential neighborhoods, schools, commercial districts, and industrial employment centers. The corridor serves a broad range of users including motorists, freight operators, pedestrians, bicyclists, transit riders, and students. The study identified the following critical priorities:

- Operational improvements at the I-80 Interchange
- Multimodal connection between the Truckee River and Victorian Avenue
- Pedestrian crossing safety throughout the corridor

The *Recommended Improvements* section is the centerpiece of this corridor study, translating the findings and analyses into a comprehensive set of recommended transportation improvements. The study recommends a combination of alternatives that provide meaningful corridor benefits to all users while balancing the diverse needs of the community. The identified improvements will be forwarded for consideration during the next Regional Transportation Plan (RTP) update process, where they will be prioritized and programmed based on regional needs, priorities, and available funding. The RTC would need to program approximately \$46,800,000 (current 2026 dollars) to fund the recommended improvements.

### Recommended Improvements

| Recommended Improvement                               | Implementation Strategy                                                                                                                                                                                                          | Cost Estimate |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| I-80 Interchange Modifications Level 1                | Minor spot improvements on Rock Boulevard. Package improvements together as one capacity and multimodal spot improvement package.                                                                                                | \$80,000      |
| Wayfinding Signage                                    |                                                                                                                                                                                                                                  | \$50,000      |
| Remove Right Turn Slip Lane at C Street               |                                                                                                                                                                                                                                  | \$400,000     |
| Crossing Treatments (F through I Street)              |                                                                                                                                                                                                                                  | \$400,000     |
| Shared Roadway (B-5)                                  |                                                                                                                                                                                                                                  | \$50,000      |
| Widen Sidewalk (15 <sup>th</sup> to Oddie) (B-3)      |                                                                                                                                                                                                                                  | \$700,000     |
| Speed Management (Tyler Way to Plymouth Way)          |                                                                                                                                                                                                                                  | \$300,000     |
| Crossing Treatments (Gault, Maxwell ES, Vance, Tyler) |                                                                                                                                                                                                                                  | \$700,000     |
| Dual Northbound Right Turn Lanes at McCarran          |                                                                                                                                                                                                                                  | \$70,000      |
| Transit Improvements                                  |                                                                                                                                                                                                                                  | \$750,000     |
| Spot Improvement Package Subtotal                     |                                                                                                                                                                                                                                  | \$3,500,000   |
| Multi-Use Path (A-1, A-2, A-4)                        | Mid-term multimodal improvement project. Slip lane modifications would be constructed concurrently with the Multi-Use Path. Elements of the I-80 Level 2 or Level 3 could be constructed within the A-4 segment of this project. | \$22,000,000  |
| Slip Lane Modifications                               |                                                                                                                                                                                                                                  | \$1,000,000   |
| Multi-Use Path Package Subtotal                       |                                                                                                                                                                                                                                  | \$23,000,000  |
| I-80 Interchange Modifications Level 2                | Potential interim improvements prior to the long-term NDOT I-80/Rock Blvd interchange project. Elements of the Multi-Use Path (A-4) could potentially be constructed with Level 2 or Level 3.                                    | \$300,000     |
| I-80 Interchange Modifications Level 3                |                                                                                                                                                                                                                                  | \$5,000,000   |
| I-80 Interchange Package Subtotal                     |                                                                                                                                                                                                                                  | \$5,300,000   |
| Widen Sidewalk on Both Sides (B-4)                    | Multimodal improvement project.                                                                                                                                                                                                  | \$15,000,000  |
| Widen Sidewalk Package Subtotal                       |                                                                                                                                                                                                                                  | \$15,000,000  |
| Total Planning Level Cost Estimate                    |                                                                                                                                                                                                                                  | \$46,800,000  |

# ACKNOWLEDGEMENTS

The Rock Boulevard Corridor Study was funded and administered by the Regional Transportation Commission of Washoe County (RTC), in partnership with the City of Sparks, to improve mobility, safety, and accessibility for all who travel along the corridor, whether walking, bicycling, using transit, or driving. The corridor's diverse travel demands create a complex set of transportation challenges and opportunities. The project team sincerely thanks the residents, students, businesses, stakeholders, technical advisors, and agency partners who generously shared their time, experience, and local knowledge throughout the study. Their input was instrumental in developing balanced recommendations that reflect community priorities and will guide future improvements on Rock Boulevard.

## Technical Advisory Committee

| <u>Name</u>       | <u>Agency/Organization</u> |
|-------------------|----------------------------|
| Vanessa Lacer     | RTC Washoe                 |
| Graham Dollarhide | RTC Washoe                 |
| Shay League       | RTC Washoe                 |
| Marquis Williams  | RTC Washoe                 |
| Jeff Wilbrecht    | RTC Washoe                 |
| Sara Going        | RTC Washoe                 |
| Josh MacEachern   | RTC Washoe                 |
| Scott Carey       | City of Sparks             |
| Amber Sosa        | City of Sparks             |
| Andrew Jayankura  | City of Sparks             |
| Jeff Bickett      | City of Sparks             |
| Julie Duewel      | City of Sparks             |
| Nick Johnson      | NDOT                       |
| Christine Chia    | NDOT                       |

## Consulting Team

|               |            |
|---------------|------------|
| Loren Chilson | GCW        |
| Dylan Axtell  | GCW        |
| Dan Doenges   | Parametrix |
| Amy Cummings  | Parametrix |

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Figure 2 – Crash Severity Map

Figure 3 – Crash Heat Map

Figure 4 – Pedestrian Experience Index (PEI)

Figure 5 – Bicycle Level of Traffic Stress (BLTS)

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## **Appendices**

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Appendix A – Public Engagement Documentation

Appendix B – Existing Conditions

Appendix C – Crash Data

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# PURPOSE AND NEED

## Purpose

The purpose of the Rock Boulevard Corridor Study is to identify capacity, safety, and mobility improvement options on Rock Boulevard for all corridor users between North McCarran Boulevard and the Truckee River. The study area is shown in **Figure 1**. This includes traffic operations and freight movement enhancements, safety improvements, and upgrading infrastructure for accessible walking, bicycling, and transit.

## Need

Rock Boulevard is an important corridor that provides north-south connectivity across the Truckee River, Union Pacific Railroad (UPRR), and I-80. It serves a wide variety of land uses, including residential neighborhoods, industrial centers, retail and entertainment destinations, public schools, places of worship, and community parks.

Rock Boulevard serves over 20,000 vehicles per day and experiences regular traffic congestion and travel delay at critical locations, such as the I-80 interchange (**Exhibit 1**).

Between 2019 and 2023, 456 crashes occurred in the corridor, including four fatalities and nine serious injuries. Thirteen crashes involved a pedestrian and seven involved bicyclists, including one fatality for each group. Active transportation options are limited, with the only bicycle lanes adjacent to Rock Park in the southern portion of the corridor. As identified in the RTC Active Transportation Plan, the corridor scores poorly when evaluated using the Pedestrian Experience Index and Bicycle Level of Traffic Stress index.



**Exhibit 1. Queuing and Congestion at I-80 Interchange**





### STUDY ROADWAY SEGMENTS

- (Northern Neighborhood)
- Oddie Blvd to Victorian Ave (Residential / Commercial)
- Victorian Ave to Hymer Ave (I-80 Interchange)
- Hymer Ave to Greg St (Industrial)
- Greg St to Truckee River (River)



# PUBLIC AND STAKEHOLDER ENGAGEMENT

The Rock Boulevard Corridor Study has incorporated input from the public and agency partners regarding both corridor challenges and proposed solutions. An Engagement Plan was created to outline the outreach approach, strategies, and tools and is aligned with the strategies defined in the RTC Public Participation Plan (PPP). The Engagement Plan is provided in **Appendix A**.

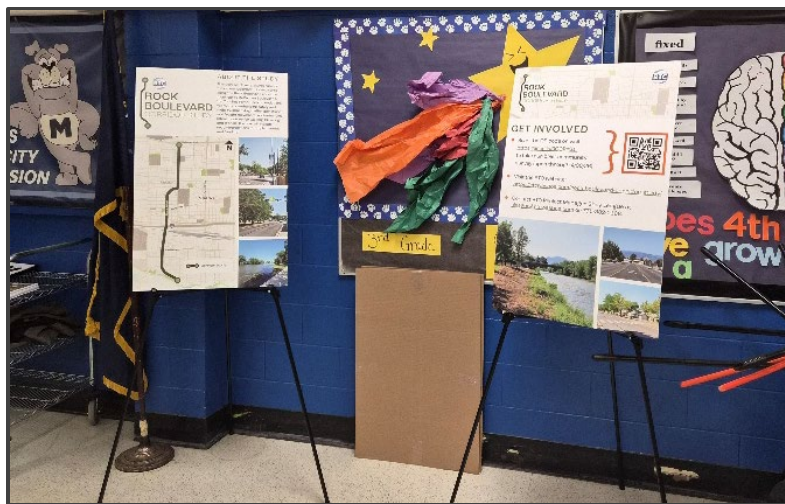
## Public Engagement Strategies

The project team used a multi-channel outreach strategy (digital content, surveys, events) to maximize participation and accessibility. English and Spanish outreach materials were developed to encourage participation from all residents and the traveling public within the corridor study limits. Diverse outreach methods used included the following:

- RTC press releases and digital and social media.
- Outreach materials, including informational flyers, posters, and printed materials displaying maps, data, and other information for public outreach events and general distribution.
- Online public survey and a targeted printed survey for 5th grade elementary school students attending Maxwell Elementary School, which is located on Rock Boulevard.
- Presentation and information sharing at organized events, pop-up events, and at select locations within the study area.

Specific outreach events included:

- An information gathering meeting with Maxwell Elementary School staff and subsequent attendance at an “Art Night” event hosted at the school to share information with parents and students (**Exhibit 2**).
- An information gathering meeting with Sparks High School staff and subsequent presentation to the Sparks High School Student Voice, the school-specific Student Advisory Council.
- A pop-up meeting at RTC Centennial Plaza to engage transit riders near the corridor as well as those on routes along the corridor.
- Distribution of project flyers to local businesses and organizations within the study area.
- Meeting with Washoe County School District regarding Safe Routes to School.



**Exhibit 2. Project Information Meeting at Maxwell Elementary**

## Partner Agency and Stakeholder Engagement

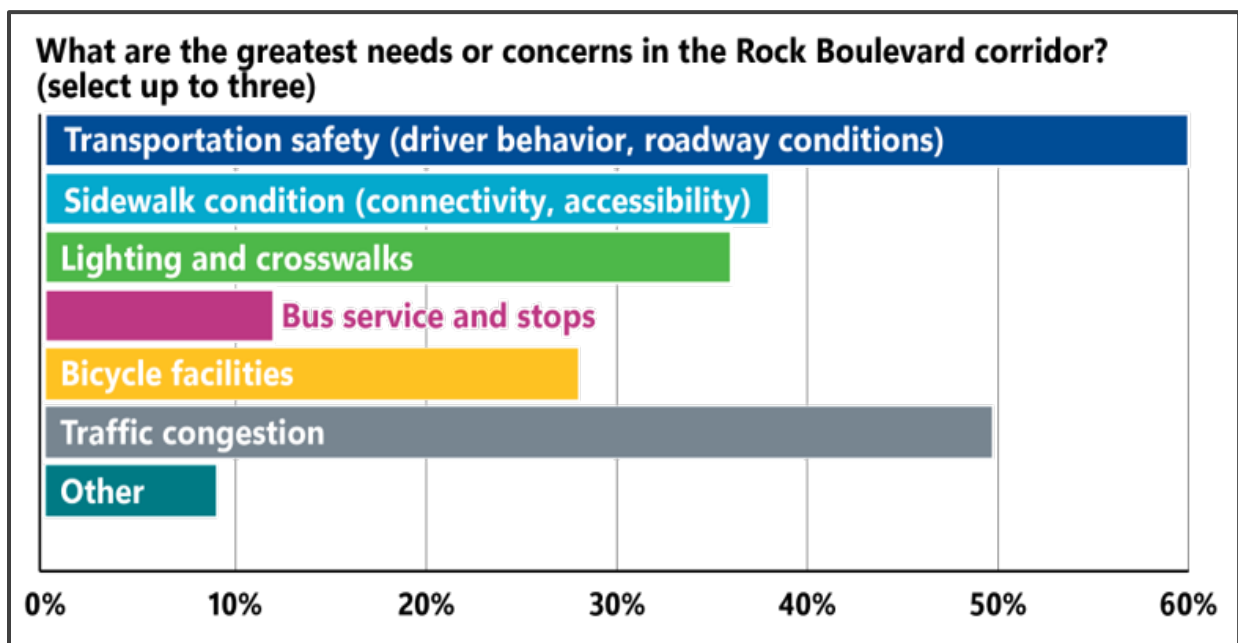
The project team met regularly with partner agency staff from RTC Departments (Planning, Engineering, Public Transportation), City of Sparks, Nevada Department of Transportation (NDOT), and the Washoe County School District throughout development of the Rock Boulevard Corridor Study. In addition to regularly scheduled project Technical Advisory Committee (TAC) meetings, the project team held individual meetings with agency staff to discuss unique issues, concerns, and proposed improvements as they relate to each agency's policies, plans, and operations. These individual meetings were conducted through a combination of site visits and in-person or virtual meeting formats.

RTC staff also provided updates to their advisory committee members (RTC Technical Advisory Committee and Citizens Multimodal Advisory Committee) as well as the RTC Board to reach a broader base of agency staff, public interest representatives, and elected officials. Feedback and direction from these groups was incorporated into the final plan.

## Key Themes

Safety and traffic congestion on Rock Boulevard were consistently identified as the top concerns among community members (**Exhibit 3**). The following are key findings and general themes from corridor users:

- Traffic congestion and signal timing problems, notably at the I-80/Rock Boulevard Interchange
- Speed and aggressive driving issues
- Pedestrian safety concerns especially around schools, major intersections, and near I-80
- Desire for safer bicycle infrastructure



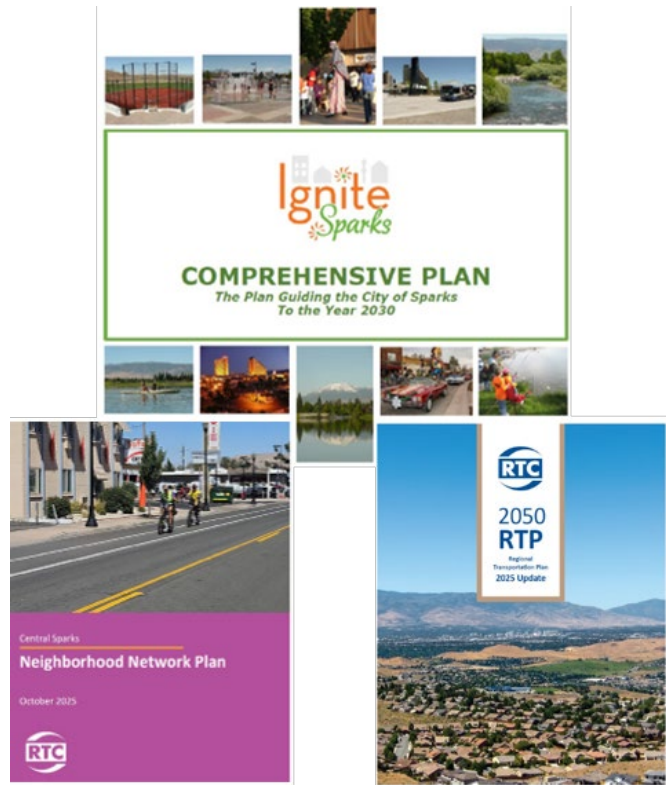
**Exhibit 3. Online Survey Results**

## EXISTING CONDITIONS

The project team collected, organized, and evaluated relevant existing data and background information to develop a clear understanding of existing conditions and identify key transportation issues in the study area. Additional existing conditions documentation is provided in **Appendix B**.

### Plan Review

The team reviewed key planning documents to inform the corridor analysis and concept development, including the Sparks Comprehensive Plan, the Central Sparks Neighborhood Network Plan (NNP), and the 2050 RTP (**Exhibit 4**). This review helped identify corridor priorities, multimodal recommendations, and opportunities to strengthen connectivity, while also providing a policy and planning framework for evaluating existing conditions and shaping potential improvement concepts. The findings from these documents were used to better understand how the Rock Boulevard corridor fits within broader local and regional planning efforts and to support the development of practical, context-sensitive multimodal concepts. The *Ignite Sparks Comprehensive Plan* does not show Rock Boulevard as a “Complete Street”, which would prioritize pedestrian and bicycle facilities on that roadway. Therefore, it is inferred that vehicle travel and capacity are of high priority on this arterial roadway.



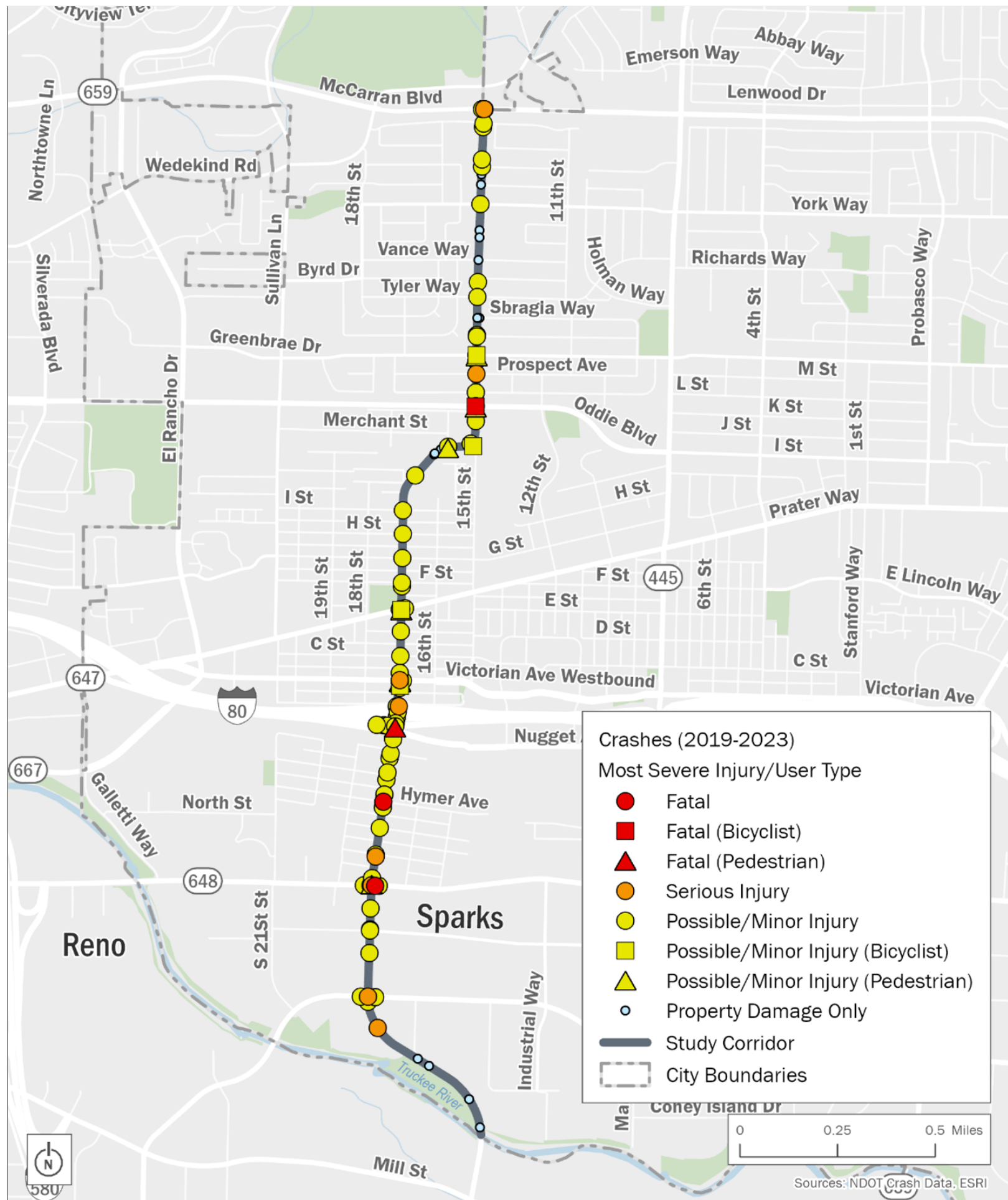
**Exhibit 4. Key Planning Documents**

### Crash Data

Crash data for the study area was obtained from NDOT for the 2019-2023 period and supplemental data was received from the City of Sparks Police Department for the 2024 -2025 period. During this time, there were 456 total crashes reported. Of those, there were four fatalities and nine serious injuries as shown in **Figure 2**. Crashes involving vulnerable road users (VRUs), generally considered those using active transportation modes such as walking and bicycling, primarily occur at intersections or at the I-80 interchange as shown in **Figure 3**. Complete crash data is provided in **Appendix C**.

### Speed Data

Vehicular speed data on Rock Boulevard was obtained from the RTC for two locations, between York Way and Oddie Boulevard, and between Greg Street and the Truckee River. Between York Way and Oddie Boulevard (30 mph posted speed limit), the average speed was 33.3 mph and the 85<sup>th</sup> percentile speed was 37.3 mph. Between Greg Street and the Truckee River (30/45 mph posted speed limit), the average speed was 42 mph and the 85<sup>th</sup> percentile speed was 48.5 mph. Both surveyed locations indicate elevated vehicle speeds (greater than 7 mph over the posted speed limit) within the study corridor. Complete speed data is provided in **Appendix D**.

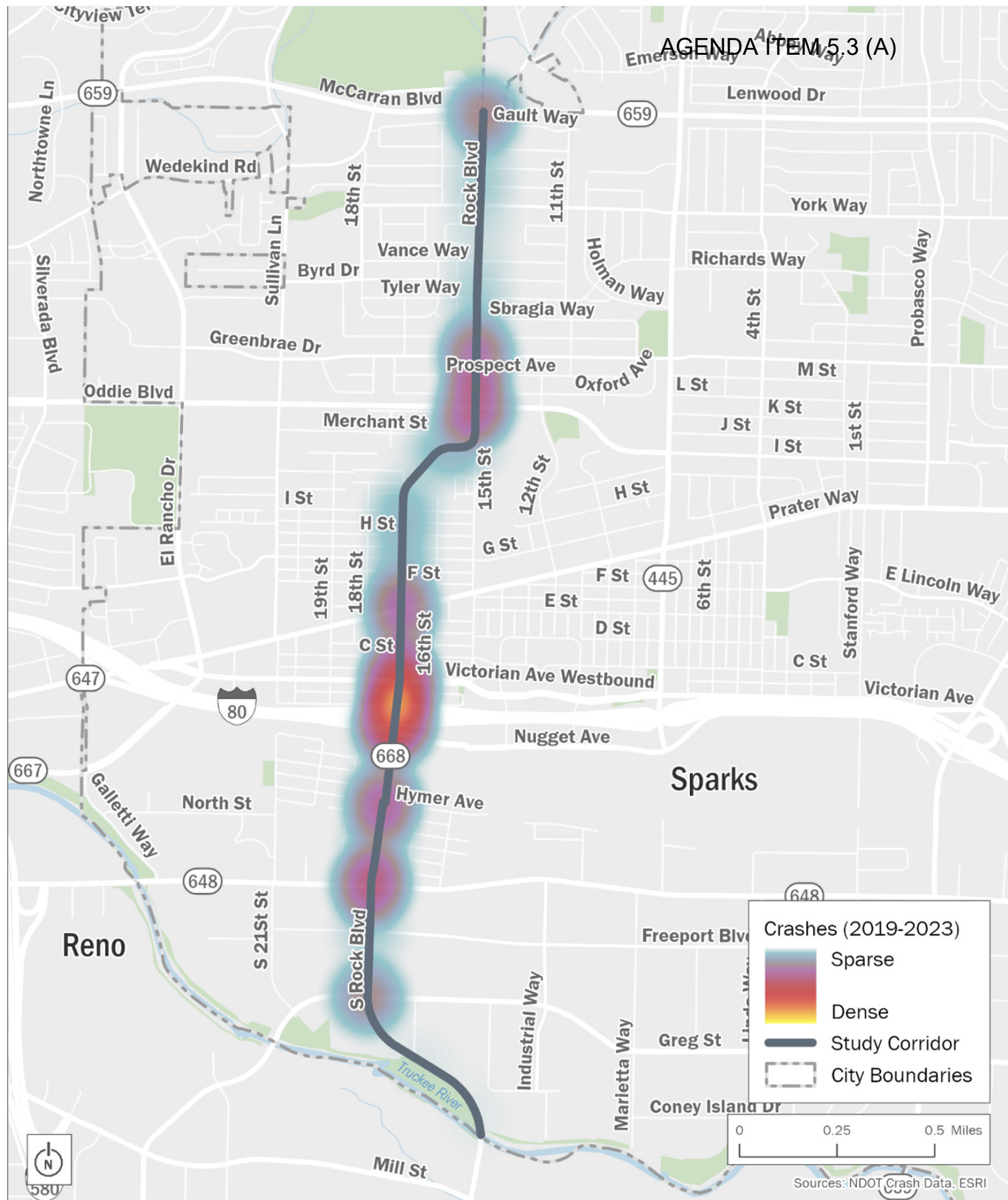


**Figure 2**

Rock Boulevard  
Corridor Study

**Crash Severity Map**





**Figure 3**

Rock Boulevard  
Corridor Study

**Crash Heat Map**



## Existing Active Transportation Facilities

### Pedestrian Conditions

**Figure 4** shows the Pedestrian Experience Index (PEI) and indicates that much of the corridor is generally uncomfortable for walking, particularly south of Greg Street and near the I-80 interchange. Sidewalk gaps are also present in several locations, including south of Greg Street, between Freeport Boulevard and Glendale Avenue, and between Hymer Avenue and Victorian Avenue, where the east side lacks a continuous sidewalk and the west side has limited connectivity.

There are several school zones in proximity to the Rock Boulevard corridor; however, Maxwell Elementary School is the only school located directly adjacent to the roadway. Other nearby schools include Risley, Mitchell, and Kate Smith Elementary Schools; Sparks Middle School; and Sparks High School. There is high student walking potential in the northern portion of the study corridor (generally north of Victorian Avenue) since the schools are located in residential areas.

### Bicycle Conditions

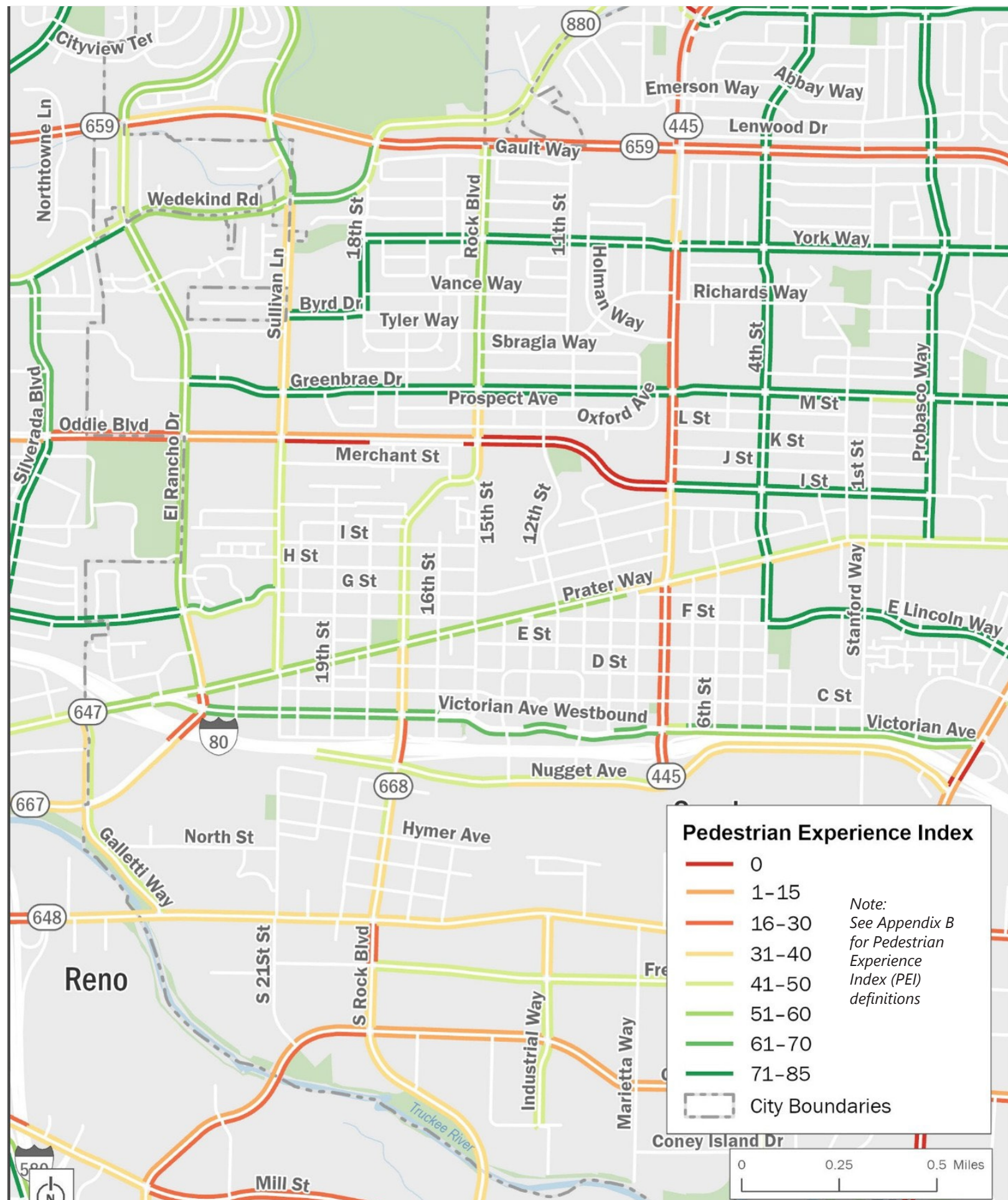
Bicycle facilities are limited along most of Rock Boulevard, with existing bike lanes only provided south of Greg Street near Rock Park. **Figure 5** shows the Bicycle Level of Traffic Stress (BLTS) for the study corridor and surrounding roadways. Most corridor segments on Rock Boulevard are rated Bicycle Level of Traffic Stress (BLTS) 4, indicating high-stress conditions due to high speeds, traffic volumes, and the absence of bikeways. The northern and southern segments are somewhat less stressful at BLTS 3, but still uncomfortable for most riders.

### Transit Service

Rock Boulevard functions as an important transit corridor, with multiple RTC routes intersecting or traveling through the study area. The existing transit routes are summarized below and shown in **Figure 6**:

- Five RTC routes intersect or run along the corridor: Routes 2, 9, 11, 18, and 54.
- There are 13 bus stops on Rock Boulevard; none include shelters, and more than half have no amenities.
- The corridor serves both high- and lower-ridership routes, including Route 11, which has the second-highest ridership in the system, and Route 2, which ranks fifth in the system.

RTC is developing the Move More initiative to improve public transit services. While no route changes are proposed on Rock Boulevard, Route 2 would be modified to extend service to the Sparks Senior Center on Richards Way. Route 54 would be extended to serve the Northern Nevada Sierra Medical Center in the southern portion of the route and modified east of the airport to better serve high ridership areas. Detailed findings and recommendations are provided within the Transit Stop Evaluation provided in **Appendix E**.

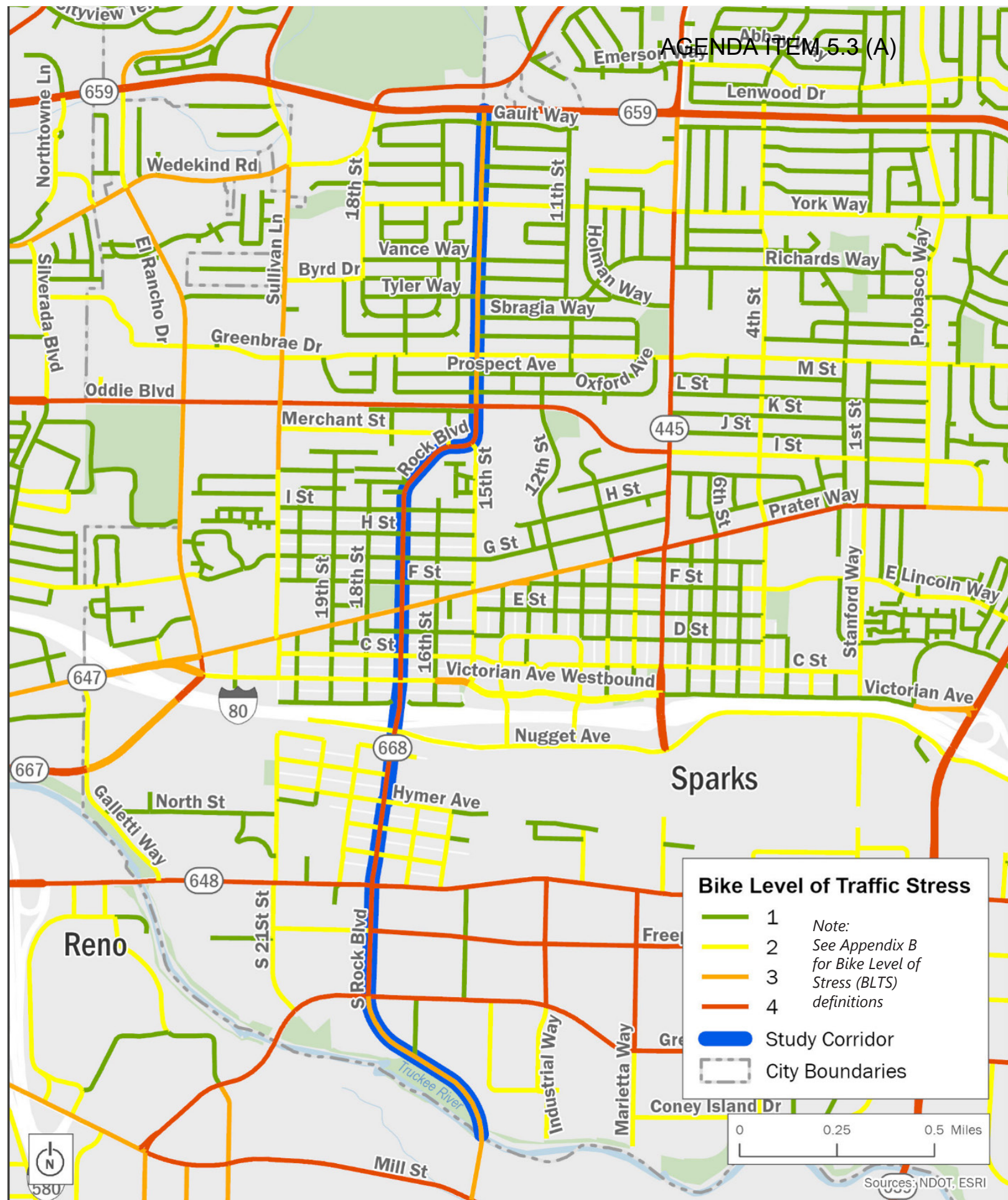


**Figure 4**

Rock Boulevard  
Corridor Study

**Pedestrian Experience Index (PEI)**





**Figure 5**

Rock Boulevard  
Corridor Study

**Bicycle Level of Traffic Stress (BLTS)**





# TRAFFIC OPERATIONS ANALYSIS

A traffic operations analysis was conducted to evaluate how the Rock Boulevard corridor currently functions and how it is expected to perform in the future. The analysis focused on intersection and roadway segment operations, identifying localized congestion, queuing, and operational constraints. Detailed assumptions, turning movement volumes, and level of service analysis are provided in **Appendix F**.

## Critical Intersections and Roadway Segments

The purpose of the Rock Boulevard Corridor Study is to identify the most significant issues and long-term needs in the corridor for all modes of travel for programming purposes. Note that N. McCarran Boulevard was studied as part of the RTC's recent McCarran Boulevard Corridor Study. Additionally, the Rock Boulevard / Greenbrae Drive intersection has been recently evaluated by the City of Sparks/GCW for crosswalk safety. Oddie Boulevard was recently improved through the RTC's Oddie/Wells Project. Prater Way was improved through the RTC's 4th Street/Prater Way BRT project. Additionally, NDOT is currently underway with planning efforts for the *Reno Spaghetti Bowl Project* which will reconfigure the I-80 and Rock Boulevard interchange in the future. Therefore, the focus of this study was placed on other locations with the highest volumes and activity. The study area roadway segments and intersections are shown in **Figure 7**.

### Study Intersections

The following six (6) intersections were identified as the critical intersections within the corridor and those that were analyzed in this study:

1. Rock Boulevard / 15<sup>th</sup> Street
2. Rock Boulevard / C Street
3. Rock Boulevard / Victorian Avenue
4. Rock Boulevard / Hymer Avenue
5. Rock Boulevard / Glendale Avenue
6. Rock Boulevard / Greg Street

### Study Roadway Segments

The Rock Boulevard corridor was studied in segments based on the differing characteristics and logical breakpoints in traffic volumes. The study segments and general character (as noted in **Figure 7**) are:

- N. McCarran Boulevard to Oddie Boulevard (Residential)
- Oddie Boulevard to Victorian Avenue (Residential / Commercial)
- Victorian Avenue to Hymer Avenue (I-80 Interchange)
- Hymer Avenue to Greg Street (Industrial)
- Greg Street to Truckee River (River)

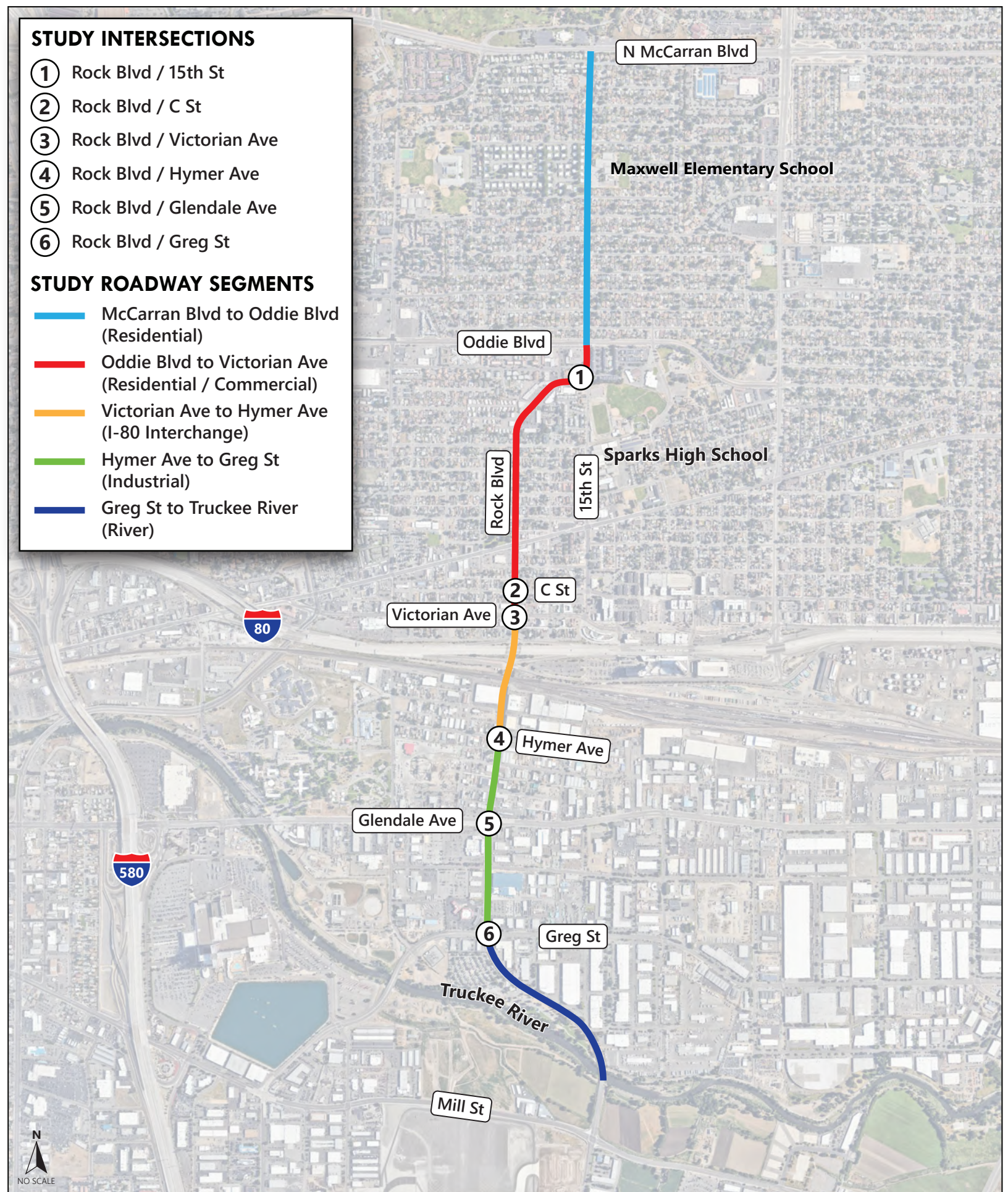


## STUDY INTERSECTIONS

- ① Rock Blvd / 15th St
- ② Rock Blvd / C St
- ③ Rock Blvd / Victorian Ave
- ④ Rock Blvd / Hymer Ave
- ⑤ Rock Blvd / Glendale Ave
- ⑥ Rock Blvd / Greg St

## STUDY ROADWAY SEGMENTS

- McCarran Blvd to Oddie Blvd (Residential)
- Oddie Blvd to Victorian Ave (Residential / Commercial)
- Victorian Ave to Hymer Ave (I-80 Interchange)
- Hymer Ave to Greg St (Industrial)
- Greg St to Truckee River (River)



**Figure 7**

Rock Boulevard  
Corridor Study

Study Intersections and Roadway Segments



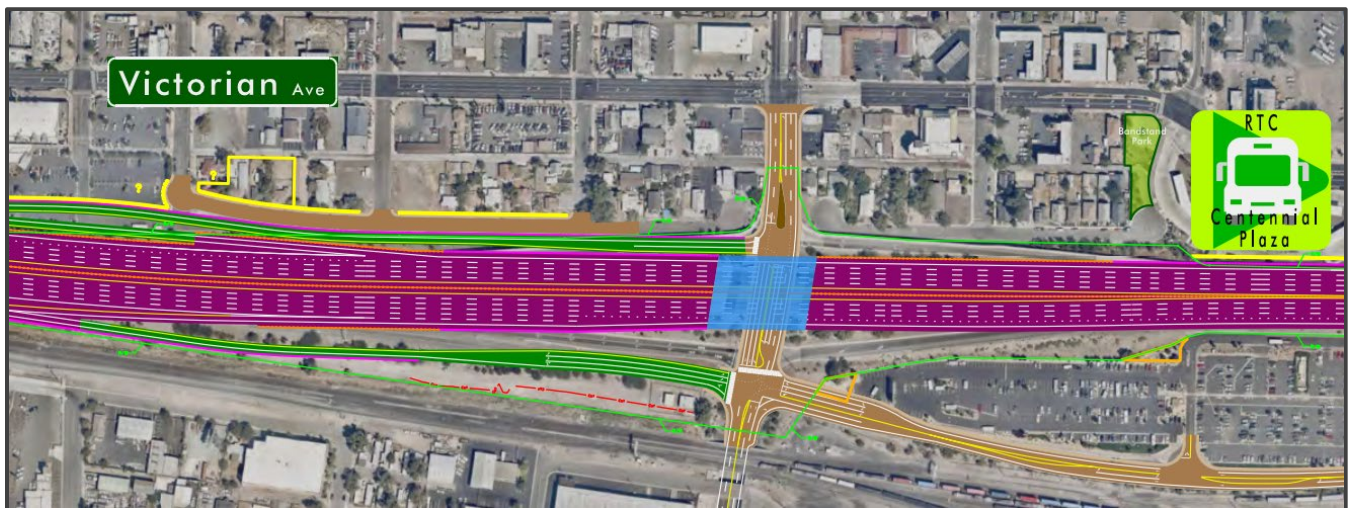
## Existing Conditions Level of Service Analysis

The study intersections and roadway segments currently operate within overall level of service policy (which is LOS "F" near the interchange from Glendale Ave to Victorian Ave and "LOS D" along the remainder of the corridor). Intersections may operate at acceptable levels of service overall but have movements that operate poorly, causing queuing and congestion on Rock Boulevard during peak hours. Notably, congestion occurs in the northbound direction, south of I-80, during the PM Peak Hour. Additionally, the closely spaced traffic signals near the I-80 interchange create coordination challenges and limited vehicle storage between intersections.

The single northbound left-turn lane at the I-80 westbound on-ramp is the primary operational constraint in the corridor. NDOT's preferred alternative at the interchange proposes dual northbound left-turn lanes at this location in the future. However, interim improvements are recommended due to the likelihood that NDOT improvements will not be implemented within the next 10-plus years.

## Traffic Volume Forecasting

NDOT is planning improvements along I-80 including the Rock Boulevard interchange (**Exhibit 5**) which will cause significant changes to traffic volumes. NDOT's *Reno Spaghetti Bowl Project - Traffic Analysis Report* includes turning movement counts and projected 2040 volumes for NDOT's Preferred Alternative (Alternative 2). Future turning movement volumes were forecasted using the RTC Travel Demand Model and then balanced with the NDOT traffic analysis report for overall consistency.



**Exhibit 5. NDOT I-80 Preferred Alternative at Rock Blvd**

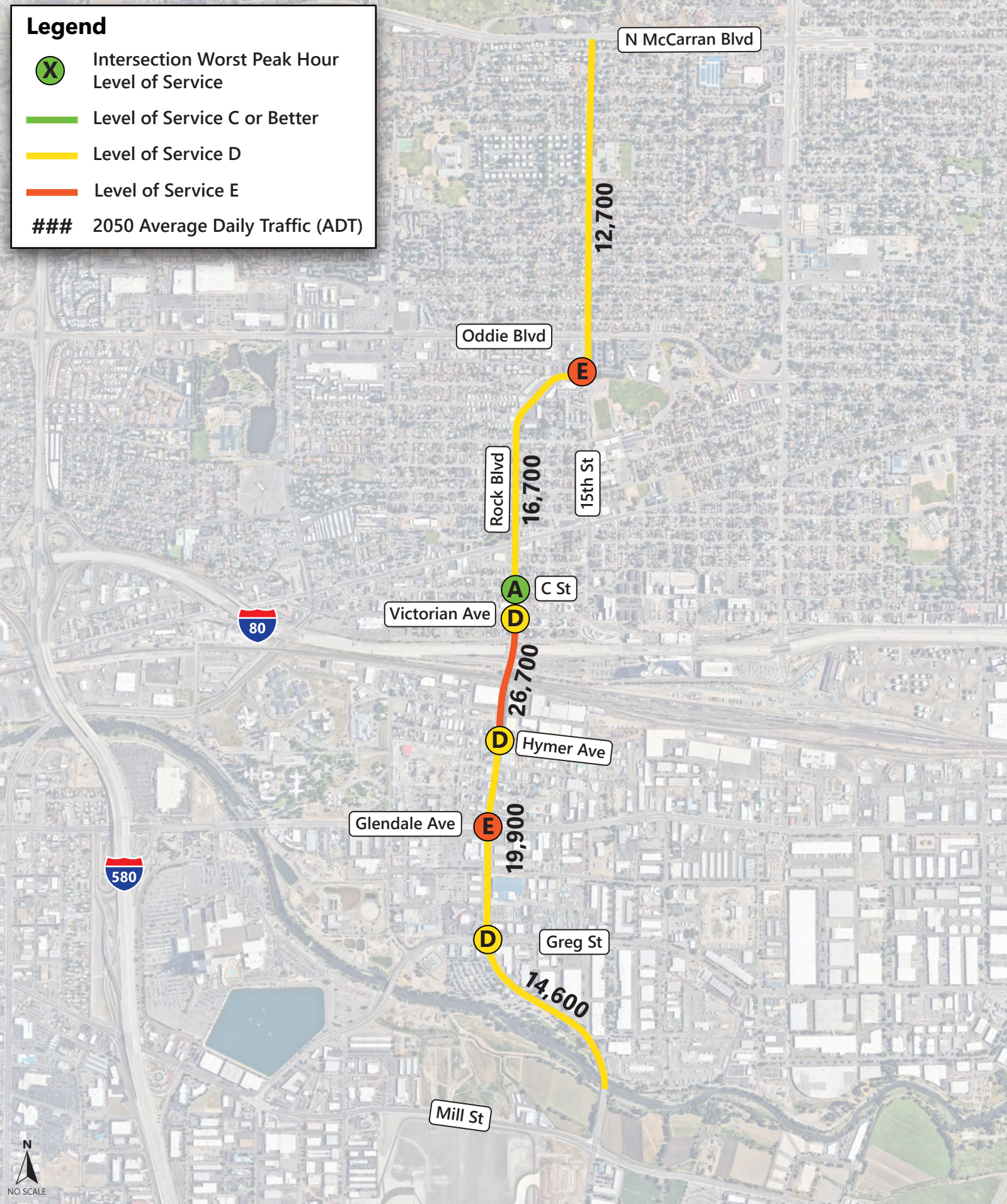
## Future Conditions Level of Service Analysis

Under future conditions, the study intersections and roadway segments are anticipated to technically operate within overall level of service policy. However, heavier traffic volumes and movements (peak hour conditions) within the interchange area are still expected to experience significant congestion in the future. Improvements at the I-80 interchange to reduce queuing and congestion are a high priority for the Rock Boulevard corridor. The Future Year Conditions (2050) operation summary is shown in **Figure 8**.



Legend

-  Intersection Worst Peak Hour Level of Service
-  Level of Service C or Better
-  Level of Service D
-  Level of Service E
-  2050 Average Daily Traffic (ADT)



Note: Study intersections and roadways operate within level of service policy; however, peak-hour congestion and queuing occur at heavier movements near the I-80 interchange.



# ALTERNATIVES ANALYSIS

A variety of potential traffic, pedestrian, and bicycle improvement options that address safety, vehicular capacity, and active transportation mobility were explored in this corridor study. The corridor was evaluated as a connected system and a range of improvement concepts were considered, based on input received through community engagement activities and TAC meetings. The alternatives analysis background, calculations, and considered but dismissed alternatives are provided in **Appendix G**.

## Projects Already Identified

Following is a list of projects that are already identified within the study area:

- Rock Boulevard/Hymer Avenue Traffic Signal Modifications
- Rock Boulevard/Commerce Street Rectangular Rapid Flashing Beacon (RRFB)
- Rock Boulevard/Greenbrae Drive Rectangular Rapid Flashing Beacon (RRFB)
- Sullivan Lane Multimodal Improvements (Under separate study, for reference only)
- Improvements to the I-80/Rock Boulevard Interchange by NDOT (long-term timeframe)

## Scoring Criteria

Each improvement alternative was screened and scored using a comprehensive scoring matrix. The scoring matrix is comprised of nine categories (100 total points) generally covering bicycle and pedestrian safety, traffic operations and freight movement, land use compatibility, and cost effectiveness and feasibility. Potential alternatives scoring less than 50 points were dismissed and alternatives scoring more than 50 points were carried forward as recommendations. The scoring criteria matrix is provided in **Appendix H**. Although some concepts did not advance to the final recommendations, they helped inform corridor needs, constraints, and opportunities.

## Railroad Undercrossing Constraint

Significant capacity improvements, including roadway widening, were deemed impractical due to right-of-way constraints (**Exhibit 6**) within the interchange area (I-80 overcrossing and Union Pacific railroad bridge). It is estimated that the cost for railroad bridge widening would be in the tens of millions of dollars (\$30M to \$50M) and would involve an extensive approval process with Union Pacific Railroad (UPRR). Roadway widening within this segment of Rock Boulevard would provide capacity benefits in this congested portion of the corridor, however, was not specifically analyzed in this study due to scope and feasibility. Roadway widening within the interchange area (I-80 overcrossing and Union Pacific railroad bridge) could be reconsidered in the future in coordination with NDOT's improvements.



**Exhibit 6. UPRR Undercrossing Constraint**



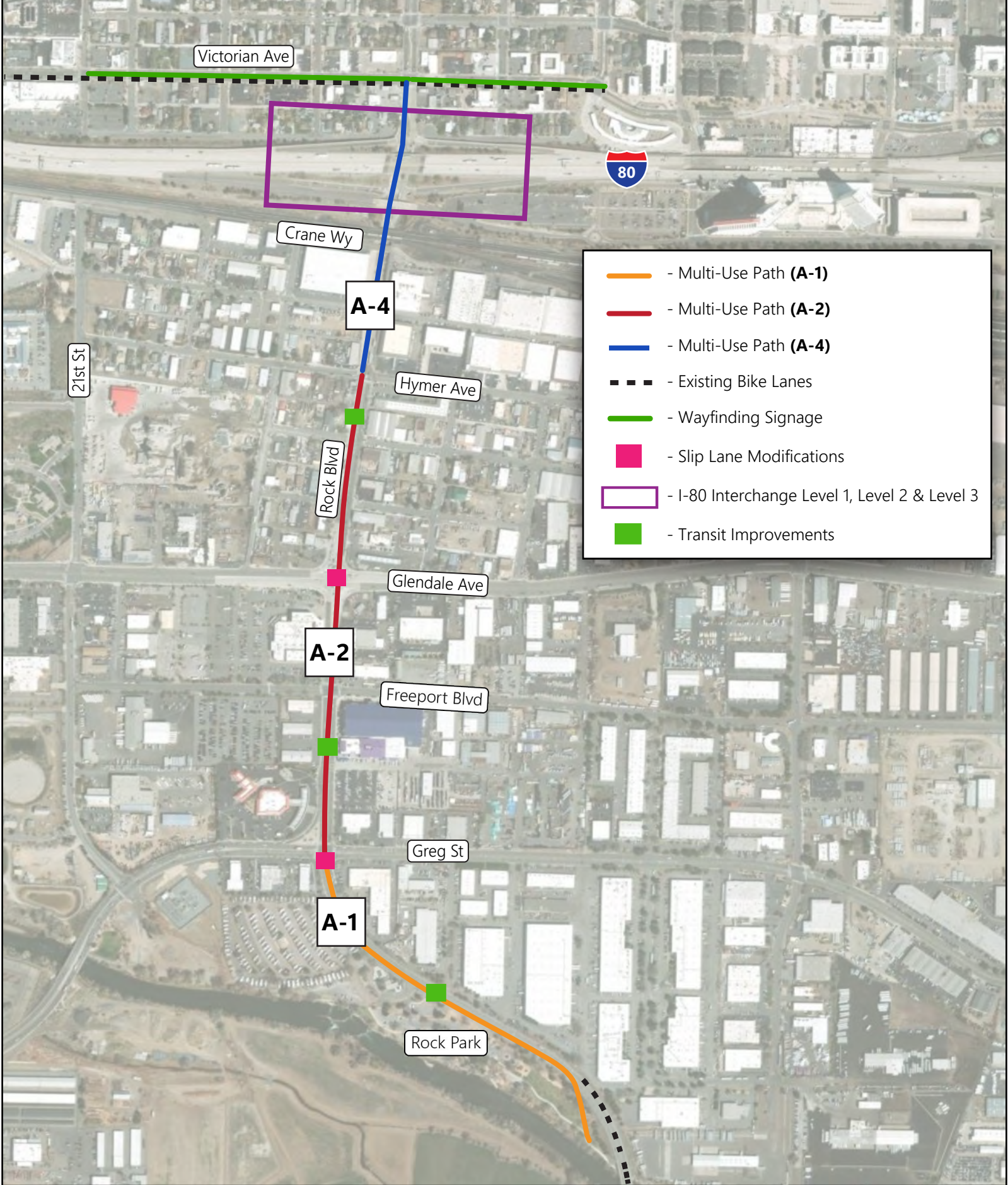
# RECOMMENDED IMPROVEMENTS

**Figure 9** and **Figure 10** summarize the improvement concepts that were advanced and carried forward for prioritization and implementation planning through a future Regional Transportation Plan (RTP) update. The identified potential improvements will be prioritized and programmed during the RTP process based on regional needs, priorities, and available funding. Each potential improvement is briefly discussed and outlined within this section with detailed corridor concepts for major roadway improvements provided in **Appendix I**.

## Highest Priorities

Following are the critical priorities identified in this corridor study:

- *Operational Improvements at I-80 Interchange:* Rock Boulevard currently experiences significant congestion issues at the I-80 interchange, notably in the northbound direction during the PM peak hour. The congestion issues cause significant queuing and back-ups along Rock Boulevard from I-80 to Greg Street. Coordination and planning improvements with NDOT is critical to improve traffic operations within this corridor.
- *Multimodal Connection between the Truckee River and Victorian Avenue:* Analysis conducted for the RTC Active Transportation Plan and field tours of the corridor indicate that the corridor is generally not comfortable for walking or cycling. This is particularly pronounced on the southern end of the corridor where traffic volumes are high, and sidewalks are not always present. Accommodation of multimodal improvements within this segment is vital to improve pedestrian and bicyclist safety and connectivity to the Truckee River Path and the recreational amenities available at Rock Park.
- *Pedestrian Crossing Safety:* Rock Boulevard currently carries relatively high traffic volumes throughout the corridor. Providing safe and enhanced crossings will improve pedestrian safety and connectivity throughout the corridor. The guiding engineering principle is that marked crosswalks on four-lane roadways should have protected crossings or enhancements for increased driver awareness such as overhead Rectangular Rapid Flashing Beacons (RRFB), pedestrian refuge islands or other treatments. However, RRFBs should not be installed at numerous adjacent intersections, or they will lose their “high visibility” value, and too many warning devices can be confusing for drivers. A Rock Boulevard crosswalk master plan is provided in **Figure 11**.

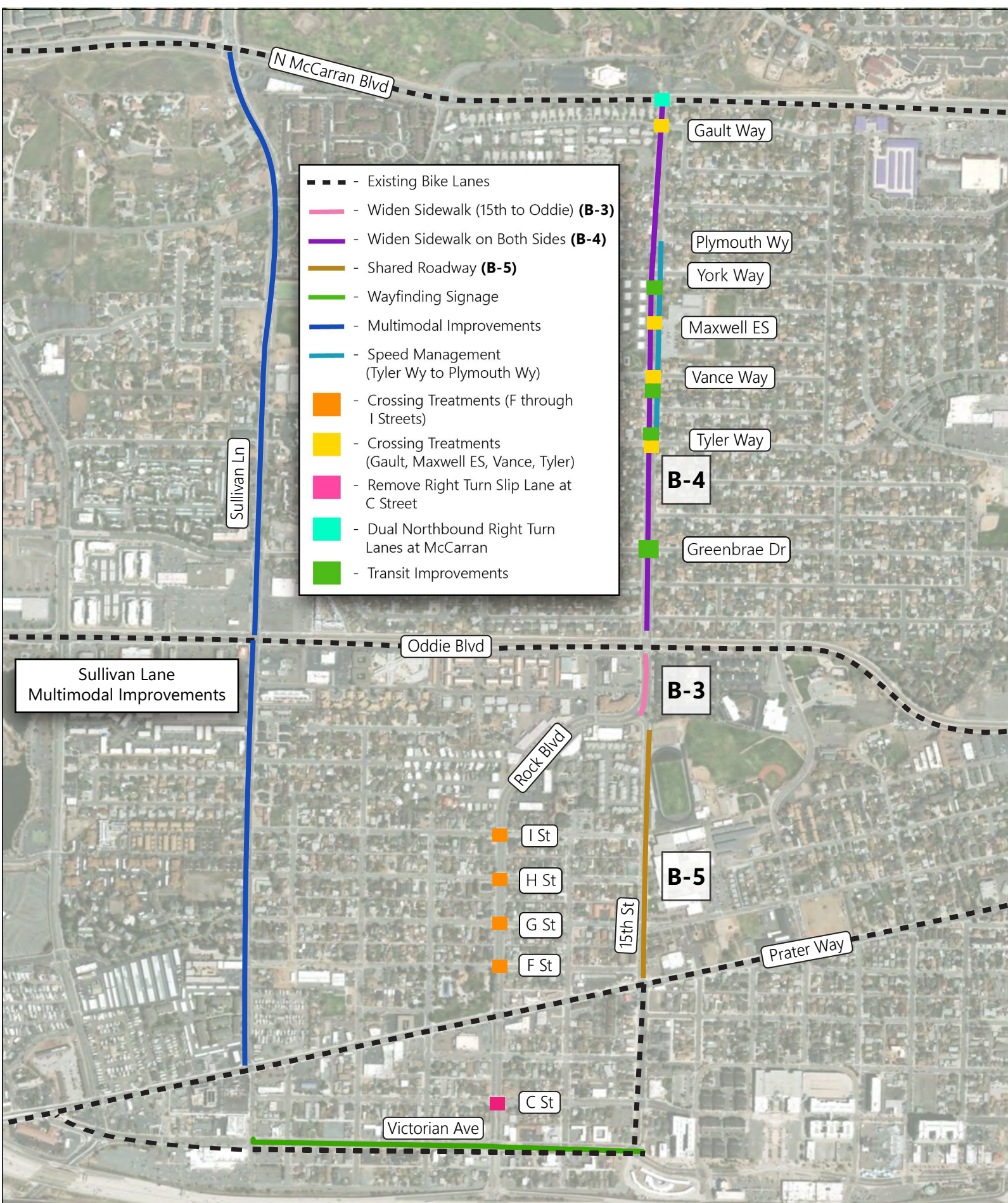


**Figure 9**

Rock Boulevard  
Corridor Study

**Recommended Alternatives (South of Victorian Ave)**





**Figure 10**

Rock Boulevard  
Corridor Study

**Recommended Alternatives (North of Victorian Ave)**





**Figure 11**

Rock Boulevard  
Corridor Study

**Crosswalk Master Plan**

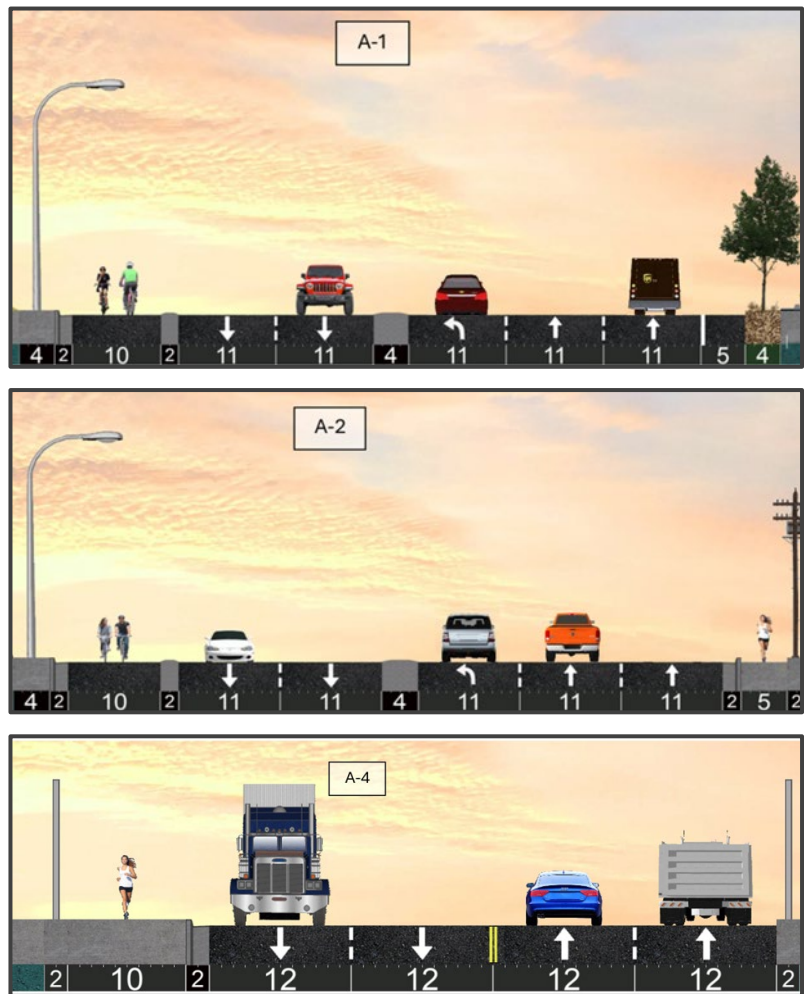


## Truckee River to Victorian Avenue

### Multi-Use Path (Cross-sections A-1, A-2 & A-4)

The Multi-Use Path A-1 and A-2 option (**Exhibit 7**) illustrates acquiring an estimated 8 to 12 feet of right-of-way and widening Rock Boulevard in order to construct a multi-use path on the west side of the roadway between Rock Park and Hymer Avenue. No other feasible options have been identified for this segment due to the constrained conditions. On-street bicycle lanes are not recommended in this high-volume road segment. Existing infrastructure on the east side of Rock Boulevard was maintained for both Multi-Use Path A-1 and A-2 options.

Cross-section A-4 (**Exhibit 7**) is specially for the roadway segment between Hymer Avenue and Victorian Avenue and shows reconfiguring the roadway (narrowing of existing wide lanes) beneath Crane Way and the UPRR underpass to move the curb and gutter inward and widen the sidewalk on the west side of the road. Reconfiguration of the bridge abutment beneath I-80 will be necessary to fit a similarly wide sidewalk between the UPRR underpass and Victorian Avenue and is included in the cost estimates. The reconfiguration beneath the UPRR and Crane Way bridges would address the most severe pedestrian discomfort and safety issue.



**Exhibit 7. Multi-Use Path, Cross-sections A-1, A-2, A-4**

### Slip Lane Modifications

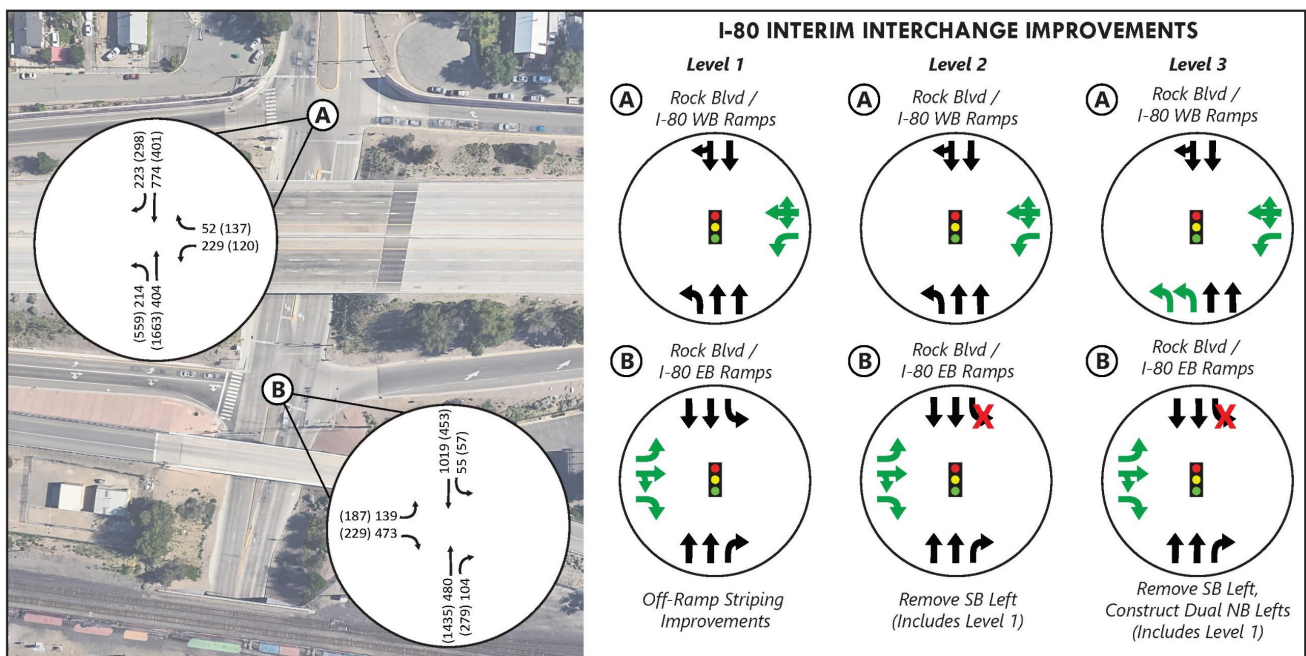
The right turn slip lane configurations at Greg Street and Glendale Avenue allow drivers to make right turns with limited need to stop or yield, reducing driver attention to pedestrians, and result in higher vehicle speeds at crosswalks. The conflicts with pedestrians and cyclists are anticipated to increase with a multi-use path and associated higher bicycle and pedestrian volumes. It is recommended that the current right turn lane configurations be modified to remove free flow right turns and be constructed with tighter turning radii.

### I-80 Interchange Modifications Level 1, Level 2 & Level 3

NDOT is planning long-term improvements along I-80 and revisions to the Rock Boulevard interchange which will cause notable changes to traffic volumes on Rock Boulevard. The schedule of the Rock Boulevard interchange improvements is unknown currently, but the major modifications are expected to be beyond 2035. Therefore, interim improvements were explored at the interchange to determine what near-term improvements could be implemented prior to the NDOT project and have a reasonable service life. The recommendations were developed assuming that neither the I-80 nor railroad undercrossing would be widened in interim conditions to add travel lanes. The following are three recommendations (**Exhibit 8**) that could be constructed as interim improvements at the I-80 Interchange:

- Level 1: Restripe the eastbound & westbound off-ramps to add dual turning lanes
- Level 2: Remove the southbound left turn movement to the eastbound on-ramp
- Level 3: Remove the southbound left turn movement and construct dual northbound left turn lanes

Level 3 would have the highest associated cost, but it would provide the greatest operational benefit by constructing the needed northbound dual left turn lanes (550+ PM peak hour left turns).



**Exhibit 8. Interim I-80 Interchange Improvements**

### Transit Improvements

The transit stop evaluation (Appendix E) found that most stops lack fully compliant boarding pads and other passenger amenities. The evaluation provides a prioritized framework for improving transit accessibility and service quality along the corridor. Recommendations include ADA upgrades, benches, shelters, improved pedestrian connections, crossing enhancements, lighting, and potential stop relocations where safety or operational concerns exist. A transit improvement project is included as a recommended improvement to address these items as one package.



## Victorian Avenue to Oddie Boulevard

### Wayfinding Signage

If the project for Sullivan Lane detailed in the *Central Sparks Neighborhood Network Plan* (RTC, 2025) and the project for 15<sup>th</sup> Street detailed herein are constructed, it is recommended that wayfinding signage be installed to guide cyclists to Sullivan Lane and/or 15<sup>th</sup> Street, which are the parallel lower stress routes north of I-80. Wayfinding signage would be installed directing northbound cyclists on Rock Boulevard at Victorian Avenue to travel east to 15<sup>th</sup> Street and/or west to Sullivan Lane to continue north. Wayfinding signage would also be provided for southbound cyclists on Sullivan Lane and/or 15<sup>th</sup> Street at Victorian Avenue to use Rock Boulevard to continue south.

### Remove Right Turn Slip Lane at C Street

Similar to the right turn slip lane modifications in the southern end of the corridor at Greg Street and Glendale Avenue, it is recommended that the slip lane at C Street be modified to reduce vehicular and pedestrian conflicts. The northbound right turn lane could be completely removed to shorten pedestrian crosswalks at the C Street intersection.

### Crossing Treatments (F through I Streets)

Pedestrian crossing safety improvements between F and I Streets are recommended due to pedestrian activity near Deer Park and student walking activity near Sparks High School. I Street is suggested as a key crossing location since it connects to the front door of Sparks High School. G Street is also suggested for crossing treatments since it is a contemplated east-west bike connection in the *Central Sparks Neighborhood Network Plan*. A marked crosswalk with refuge island is recommended at I Street and an overhead RRFB is recommended at G Street. Removing the marked crosswalks at F Street and H Street is also recommended to focus crossings at the enhanced crosswalks.

### Shared Roadway (Cross-section B-5)

A shared roadway (sharrow markings) on 15<sup>th</sup> Street between Prater Way and Rock Boulevard is recommended as 15<sup>th</sup> Street is determined to be a preferred multimodal corridor instead of placing dedicated cycling facilities on Rock Boulevard between Victorian Avenue and Oddie Boulevard. Cyclists would share the travel lane with vehicles (**Exhibit 9**) on this low volume, low speed roadway where most adults would feel comfortable riding.

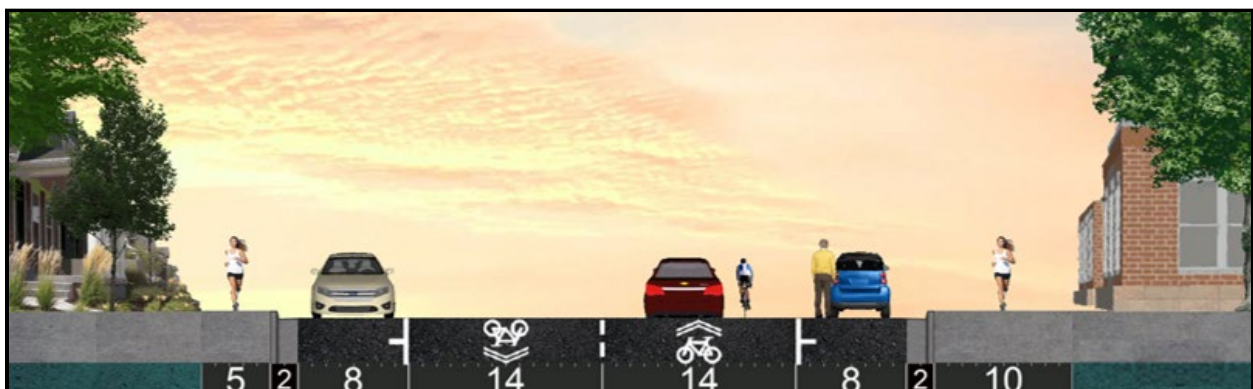
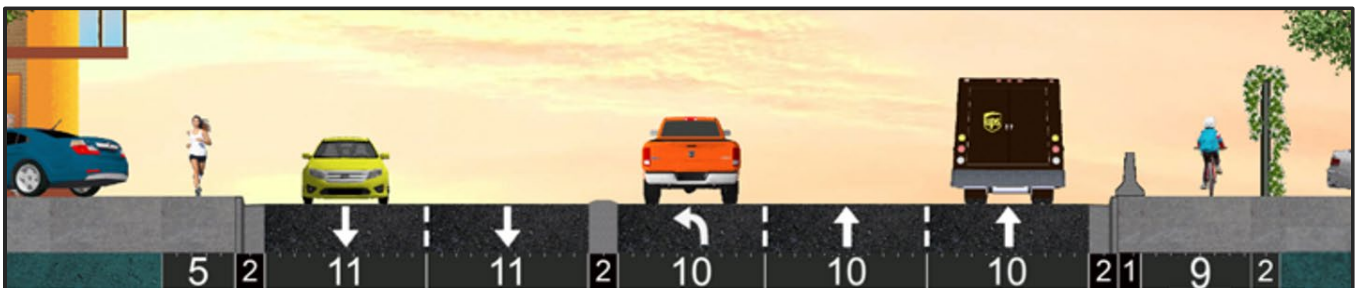


Exhibit 9. Shared Roadway (Cross-section B-5)

### Widen Sidewalk (15<sup>th</sup> to Oddie) (Cross-section B-3)

This sidewalk segment on the east side of Rock Boulevard between 15<sup>th</sup> Street and Oddie Boulevard is highly utilized by students walking between the neighborhoods north of Oddie Boulevard and Sparks High School located south on 15<sup>th</sup> Street. **Exhibit 10** illustrates a concept for the segment between 15<sup>th</sup> Street and Oddie Boulevard focusing on widening the sidewalk on the east side of Rock Boulevard to improve pedestrian safety and comfort. Narrowing the median and travel lanes on Rock Boulevard would be necessary to create additional sidewalk width. A barrier rail should be provided between the roadway and sidewalk, as exists today, for pedestrian safety and to keep errant vehicles away from the adjacent apartment complex buildings. The left turn movement from 15<sup>th</sup> Street is located within a horizontal curve on Rock Boulevard and has poor sight lines and safety implications. Very low left turn volumes (less than 10 during the peak hours) were observed during the data collection period. Therefore, consideration should be given to prohibiting the left turn movement from 15<sup>th</sup> Street to Rock Boulevard. A detailed concept is shown in **Figure 12**.

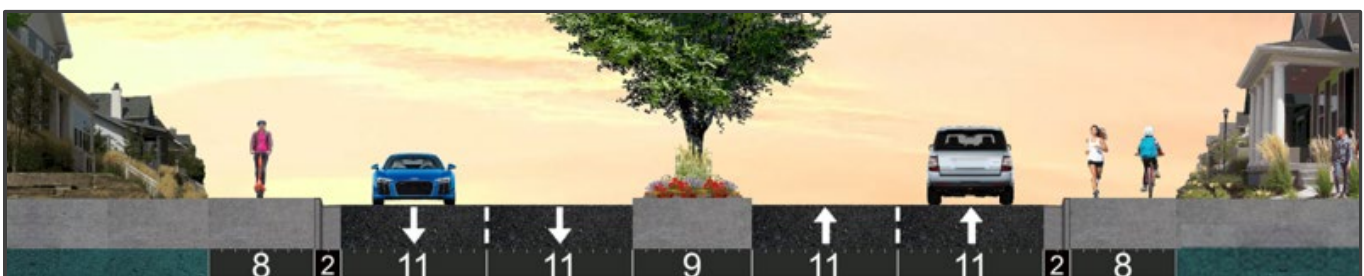


**Exhibit 10. Widen Sidewalk (15<sup>th</sup> to Oddie) (Cross-section B-3)**

### Oddie Boulevard to N. McCarran Boulevard

#### Widen Sidewalk Both Sides (Cross-section B-4)

This concept (**Exhibit 11**) is specific to the segment between Oddie Boulevard and N. McCarran Boulevard, which currently has narrow sidewalks and a wide landscaped median with mature trees. This option proposes reducing the width of the raised median (which could impact the trees) and/or travel lanes to create additional space for sidewalk widening on both sides of the street. The intent is to construct sidewalks that comply with ADA width requirements by moving the curb and gutter inward and reconstructing the sidewalks, matching the existing back of walk locations to avoid right-of-way acquisition. Narrower travel lanes would provide a slight traffic calming effect beneficial to speed management. It is acknowledged that this improvement is aimed more toward pedestrians than cyclists.



**Exhibit 11. Widen Sidewalk Both Sides (Cross-section B-4)**



ODDIE BLVD

BARRIER RAIL

NARROW LANES AND MEDIAN  
TO WIDEN EAST SIDEWALK

ROCK BLVD

RECONFIGURE 15TH STREET APPROACH  
(PROHIBIT LEFT TURN MOVEMENT)

15TH ST



## Crossing Treatments (Gault, Maxwell ES, Vance, Tyler)

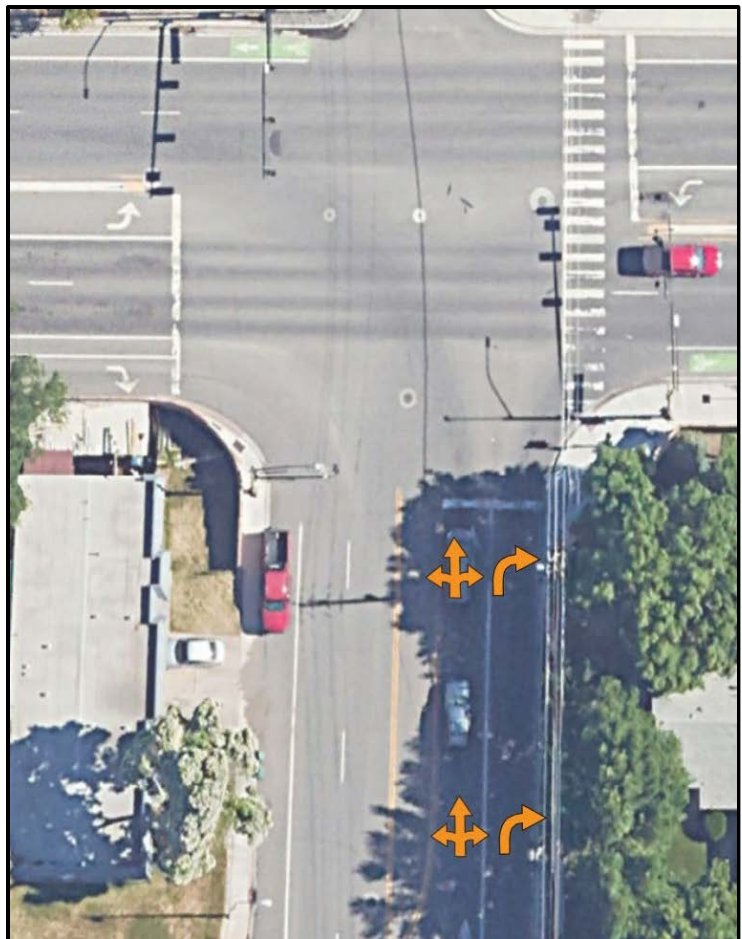
The proposed crosswalk enhancement and safety improvements at Gault Way, Maxwell Elementary School, Tyler Way, and Vance Way are intended to enhance pedestrian visibility, reduce crossing distances, and improve access to nearby neighborhoods, schools, parks, and transit stops. Recommended treatments include high-visibility crosswalk markings, rectangular rapid flashing beacons (RRFBs) at Vance Way and Maxwell Elementary School, and median refuge islands at Tyler Way and Gault Way.

## Speed Management (Tyler Way to Plymouth Way)

Observed operating speeds and driver behavior between Tyler Way and Plymouth Way indicate a need for additional speed management measures to improve safety for all corridor users. The Speed Management (Tyler Way to Plymouth Way) improvement is intended to encourage lower operating speeds through a combination of narrowing lanes via striping, pavement markings, and speed feedback signs. The speed management recommendations are intended as low cost interim measures prior to implementation of the Widen Sidewalk Both Sides (Cross-section B-4) improvement.

## Dual Northbound Right Turn Lanes at McCarran

Field observations indicate that the northbound right turn movement at the Rock Boulevard/N. McCarran Boulevard intersection experiences significant queuing and congestion. The prior *McCarran Boulevard Corridor Study* (RTC/NDOT, 2023) confirms that this movement carries a high right turn demand. To improve operations, it is recommended that the existing northbound approach be restriped with a shared left-through-right lane and a dedicated right turn lane, allowing for dual right turn operations (**Exhibit 12**). This option is expected to improve intersection level of service. Pedestrian/crosswalk and signal phasing revisions will need to be considered during the design phase.



**Exhibit 12. Dual Northbound Right Turn Lanes  
at McCarran**

# IMPLEMENTATION STRATEGY

The recommended improvements are organized into packages based on general proximity and efficient project delivery. Packages may be implemented individually or combined in future RTP updates. The improvement list and implementation strategies are presented in **Table 1**. The projects are generally listed south to north within each package rather than in order of priority. Project prioritization and implementation timing will be evaluated during future RTP updates based on regional needs and funding considerations.

As previously discussed, reducing congestion at the I-80 interchange during the PM peak hour is critical for Rock Boulevard. Long-term improvements are complex due to the current constraints under the I-80 bridge overcrossing and the Union Pacific railroad bridge. Interim improvements are important and should be programmed as outlined in this study.

**Table 1. Improvement List and Implementation Strategy**

| Recommended Improvement                               | Implementation Strategy                                                                                                                                                                                                                                                |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spot Improvement Package                              |                                                                                                                                                                                                                                                                        |
| I-80 Interchange Modifications Level 1                | Minor spot improvements on Rock Boulevard. Package improvements together as one capacity and multimodal spot improvement package.                                                                                                                                      |
| Wayfinding Signage                                    |                                                                                                                                                                                                                                                                        |
| Remove Right Turn Slip Lane at C Street               |                                                                                                                                                                                                                                                                        |
| Crossing Treatments (F through I Street)              |                                                                                                                                                                                                                                                                        |
| Shared Roadway (B-5)                                  |                                                                                                                                                                                                                                                                        |
| Widen Sidewalk (15 <sup>th</sup> to Oddie) (B-3)      |                                                                                                                                                                                                                                                                        |
| Speed Management (Tyler Way to Plymouth Way)          |                                                                                                                                                                                                                                                                        |
| Crossing Treatments (Gault, Maxwell ES, Vance, Tyler) |                                                                                                                                                                                                                                                                        |
| Dual Northbound Right Turn Lanes at McCarran          |                                                                                                                                                                                                                                                                        |
| Transit Improvements                                  |                                                                                                                                                                                                                                                                        |
| Multi-Use Path Package                                |                                                                                                                                                                                                                                                                        |
| Multi-Use Path (A-1, A-2, A-4)                        | Multimodal improvement package between the Truckee River and Victorian Avenue. Slip lane modifications would be constructed concurrently with the Multi-Use Path. Elements of the I-80 Level 2 or Level 3 could be constructed within the A-4 segment of this package. |
| Slip Lane Modifications                               |                                                                                                                                                                                                                                                                        |
| I-80 Interchange Package                              |                                                                                                                                                                                                                                                                        |
| I-80 Interchange Modifications Level 2 and Level 3    | Potential interim improvements prior to the long-term NDOT I-80/Rock Blvd interchange project. Elements of the Multi-Use Path (A-4) could potentially be constructed with Level 2 or Level 3.                                                                          |
| Widen Sidewalk Package                                |                                                                                                                                                                                                                                                                        |
| Widen Sidewalk on Both Sides (B-4)                    | Multimodal improvements between Oddie Boulevard and N. McCarran Boulevard.                                                                                                                                                                                             |

## PLANNING LEVEL COST ESTIMATES

This section presents preliminary planning level cost estimates for the broad range of recommended improvements. The quantities and costs have been generalized based on planning level conceptual designs. It is not feasible at this time to address all the specific items that would be included in construction ready documents. Soft costs (engineering, specialty consultant services, construction administration, etc.) and contingency were included to present complete project budgets. Should these prices be extended into future years, it would be advisable to include a 3% to 5% per-year increase to allow for inflation and other pricing fluctuations. **Table 2** presents planning level cost estimates for the various recommended improvements. Cost estimate assumptions and details are provided in **Appendix J**.

**Table 2. Planning Level Cost Estimates**

| <b>Recommended Improvement</b>                        | <b>Planning Level Estimate</b> |
|-------------------------------------------------------|--------------------------------|
| I-80 Interchange Modifications Level 1                | \$80,000                       |
| Wayfinding Signage                                    | \$50,000                       |
| Remove Right Turn Slip Lane at C Street               | \$400,000                      |
| Crossing Treatments (F through I Street)              | \$400,000                      |
| Shared Roadway (B-5)                                  | \$50,000                       |
| Widen Sidewalk (15 <sup>th</sup> to Oddie) (B-3)      | \$700,000                      |
| Speed Management (Tyler Way to Plymouth Way)          | \$300,000                      |
| Crossing Treatments (Gault, Maxwell ES, Vance, Tyler) | \$700,000                      |
| Dual Northbound Right Turn Lanes at McCarran          | \$70,000                       |
| Transit Improvements                                  | \$750,000                      |
| <b><i>Spot Improvement Subtotal</i></b>               | <b><i>\$3,500,000</i></b>      |
| Multi-Use Path (A-1, A-2, A-4)                        | \$22,000,000                   |
| Slip Lane Modifications                               | \$1,000,000                    |
| <b><i>Multi-Use Path Subtotal</i></b>                 | <b><i>\$23,000,000</i></b>     |
| I-80 Interchange Modifications Level 2                | \$300,000                      |
| I-80 Interchange Modifications Level 3                | \$5,000,000                    |
| <b><i>I-80 Interchange Subtotal</i></b>               | <b><i>\$5,300,000</i></b>      |
| Widen Sidewalk on Both Sides (B-4)                    | \$15,000,000                   |
| <b><i>Widen Sidewalk Subtotal</i></b>                 | <b><i>\$15,000,000</i></b>     |
| <b>Total Planning Level Cost Estimate</b>             | <b>\$46,800,000</b>            |

As shown in the table, the RTC would need to program approximately \$46,800,000 (current 2026 dollars) to fund the identified improvements. The recommended improvements will enhance mobility, safety, and accessibility throughout the Rock Boulevard corridor while preserving its important role as a regional transportation route. Together, these investments provide long-term benefits by improving connectivity, supporting economic activity, and creating a safer and more efficient transportation experience for all corridor users.



## APPENDIX A

### **Public Engagement Documentation**





## Rock Boulevard Corridor Study Engagement Documentation



*Prepared by:*

**Parametrix**

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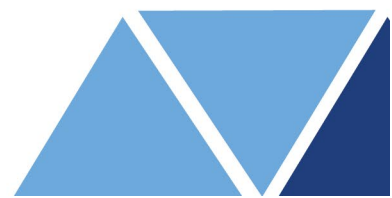


**May 2026**



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## 1. Public Engagement Strategies

The project team incorporated the following strategies and tools to provide information on the Rock Boulevard Corridor Study and solicit input and feedback from the public on challenges and potential solutions for incorporation into the plan document. Outreach materials were developed in both English- and Spanish-language text.

### 1.1. Project Messaging

Consistent messaging was provided throughout the project across engagement materials and media channels to project partners and the public. Content included key messaging such as project information and background, solicitation for public input, and project schedule and milestones. Earned media coverage generated eight broadcast events across local television outlets, reaching 32,823 local viewers.

### 1.2. Digital Outreach

The project team worked with RTC to develop concise and impactful digital public outreach content, including content for the RTC website and social media. The RTC paid social media campaign reached 22,539 unique viewers. The team also developed a project flyer (see Attachment A), which provided an overview of key project objectives, elements, and events. Online materials were designed to meet ADA accessibility standards. All handouts and surveys were provided in English and Spanish.

### 1.3. Graphics and Visualizations

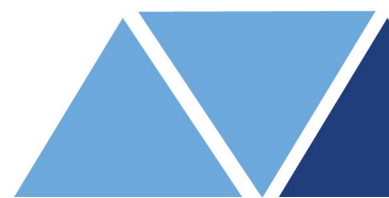
The project team developed effective graphics and other tools to help communicate complex information in an easy-to-understand format. These graphics and visualizations were prepared for use at public meetings and the project website to represent key concepts.

### 1.4. Surveys

The project team developed an online survey (see Attachment B) to help gauge resident and stakeholder needs, wants, and concerns related to transportation along the study corridor. Survey information was promoted through social media, schools, corridor businesses and institutions, and through public engagement events. In addition, a special student survey was prepared for 5<sup>th</sup> grade students at Maxwell Elementary School (see Attachment C).

### 1.5. Community Engagement

The project team collected feedback about corridor needs and key plan features through discussions with school leaders, students, and residents living and traveling through the corridor. Flyers containing project information and survey links were distributed throughout the corridor to local businesses and institutions.



## 2. Outreach Events

### 2.1. Maxwell Elementary School

On February 20, 2026, the project team met with the principal of Maxwell Elementary School, which is located directly on Rock Boulevard between York Way and Vance Way within the study limits. Topics discussed were generally focused on transportation safety and operations on Rock Boulevard related to school access, primarily during pre-bell and school release times.

Some key takeaways from the discussion include the following:

- Excessive speeding is a concern during school drop off/pick up times and driver behavior with school zone compliance is inconsistent.
- Signage has recently been installed at the intersection with Vance Way, which has improved prohibited U-turn compliance; however, there has been an increase of illegal U-turns at York Way which currently lacks signage.
- Most parents/caregivers drop off/pick up children on school property and very few park on Rock Boulevard during these times.
- Based on conversations with school officials, it is estimated that about 1/3 of students (of approximately 380 enrolled) walk to school either alone or with a parent/caregiver. Almost no students ride a bike to school and very few ride a scooter.
- There are two volunteer staff that serve as crossing guards for Rock Boulevard in front of the school entrance during pick up/drop off times, but they are not trained professionals and occasionally must deal with hostile drivers.
- There is a northbound RTC RIDE bus stop on Rock Boulevard in front of school property and there have been concerns with kindergarteners interacting with bus riders waiting at the stop. The school has installed a partial privacy fence to mitigate these issues but concerns remain.
- There are plans for capital improvements to the school within the existing footprint, but specific dates have yet to be determined. Additionally, there will be a potential re-zoning of the school enrollment area which could increase or decrease enrollment. There is currently one traditional bus and two special education buses that provide transportation to the school.
- Permission was granted to distribute two surveys, one for parents/caregivers of children attending the school, and one for 5<sup>th</sup> grade students.

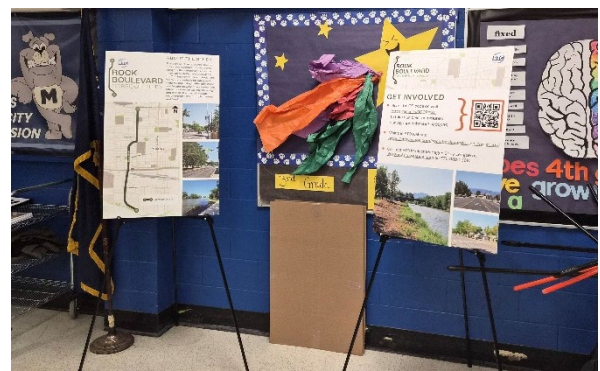
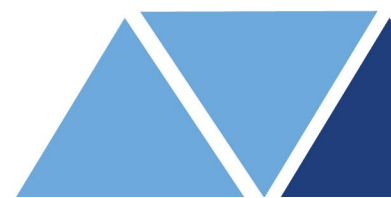


Figure 1. Maxwell ES Art Night



Following the initial school visit, the project team was invited to attend the Art Night event at the school on April 8, 2026, to staff a table, provide information on the project, and promote the online survey. Information boards were developed which highlighted project details and instructions on how to participate and provide feedback on the project (see Attachment D). Approximately 20 adults (including school staff) and several students attended the event. In addition, Maxwell Elementary School provided information through the school communication system to parents and caregivers with access to the survey.

## **2.2. Sparks High School**

On March 6, 2026, the project team met with the principal of Sparks High School, which is located on 15<sup>th</sup> Street, a parallel roadway to Rock Boulevard which directly intersects Rock Boulevard on the north terminus. Topics discussed were generally focused on transportation safety and operations within the Rock Boulevard corridor related to school access, primarily during pre-bell and school release times.

Some key takeaways from the discussion include the following:

- Most students (over half) walk, many from as far as the Sparks Marina (along Prater Way), McCarran Boulevard, and Sullivan Lane.
- Many students walk to Kate Smith Elementary School (on F Street) to pick up younger siblings after school.
- From a driver's perspective, it's difficult to make a left turn onto Rock Boulevard from cross streets (a concern is that many student drivers don't have patience/experience). This is especially true when making a left turn from northbound 15th Street to southbound Rock Boulevard.
- A suggestion was made to implement bike and pedestrian facilities on Rock Boulevard north of Oddie Boulevard. Speeding on this section of Rock Boulevard was noted as a concern as well as low compliance in the school zone at Maxwell Elementary School, which aligns with comments received during the visit with that school.
- There is generally good compliance within the school zone on 15th Street in front of Sparks High School; however, there are frequently illegal U-turns observed. Enforcement of traffic laws occurs when school police are present.
- Sparks High School has an open campus and approximately half of students leave during the lunch period. Most visit the restaurants on Prater Way, while some go to the Subway on Rock Boulevard, and a few go north to cross at Commerce Street to get to Rainbow Market (convenience store).
- Many students cross Rock Boulevard to get to/from school, and indicated that H and I Streets are the most utilized.

The project team met with the Sparks High School Student Voice on April 17, 2026. The Student Voice is a Washoe County School District program which encourages student viewpoints for school improvement through the Student Advisory Council.



The team presented information on the Rock Boulevard Corridor Study and encouraged students to identify challenges and concerns along the corridor from their perspective. Some high-level comments received include the following:

- Vehicles (including those driven by other high school students) don't stop for pedestrians at crosswalks, and students sometimes must wait for several cars to pass before a driver yields.
- A similar concern was voiced about vehicles making turning movements (e.g., trying to turn quickly to avoid having to wait for someone at the crosswalk).
- Vehicles ignore pedestrians at the overhead beacons by Commerce Street (students report going the "long way" to get to Rainbow Market).
- There is perceived speeding on Rock Boulevard and adjacent streets.
- The intersection with Greenbrae Drive was identified as an unsafe intersection due to sight distance issues. Participants cited several crashes at this intersection.
- There were suggestions for more/expanded sidewalks, rectangular rapid flashing beacons (RRFBs), and other improvements to make drivers more aware of pedestrians.
- Much of the existing sidewalk on Rock Boulevard is not in good condition. The sidewalk panels are lifted or otherwise obstructed, and it would be difficult for someone in a wheelchair to navigate.
- There was support for better connections to Rock Park.

Students were also encouraged to participate in the online survey and to promote the survey among their peers. There were approximately 25 students in attendance. In addition, Sparks High School provided links to the survey on their social media accounts.

## 2.3. Centennial Plaza

On April 29, 2026, the project team set up an engagement table at the RTC Centennial Plaza Transit Center to provide information about the project as well as to promote participation in the online survey. This location was chosen due to its relative proximity to the corridor, as well as serving as a transfer point for several RTC RIDE routes that run on segments of Rock Boulevard or intersect the corridor with bus stops nearby. The project team discussed the corridor study with several individuals passing through the transit center. A total of 37 flyers containing project information and a QR code linked to the online survey were distributed during rider interactions.

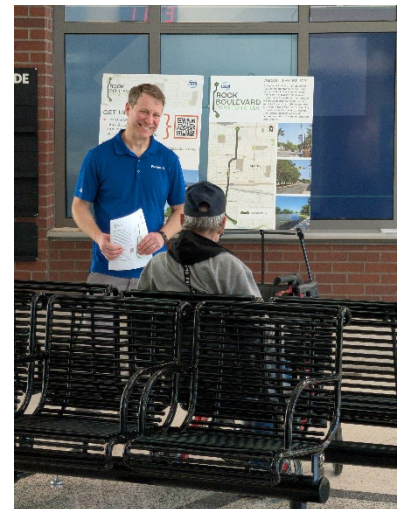
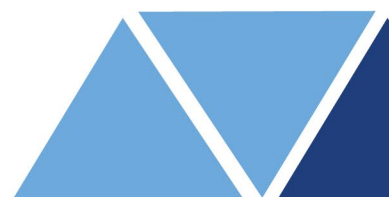


Figure 2. Outreach at RTC Centennial Plaza

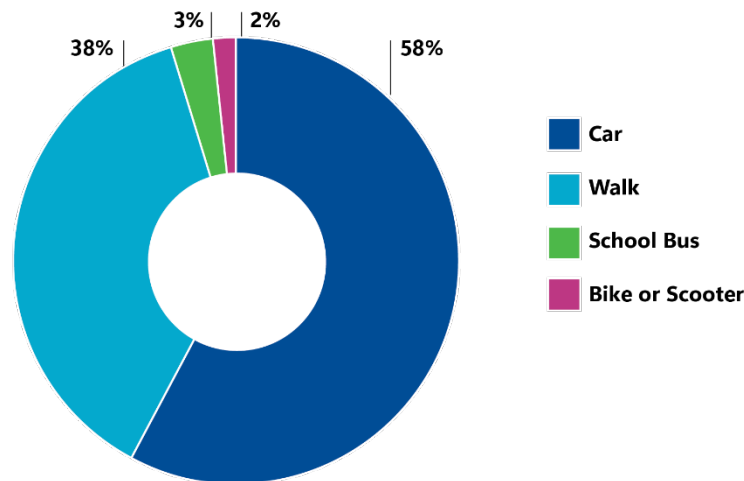


## 3. Surveys

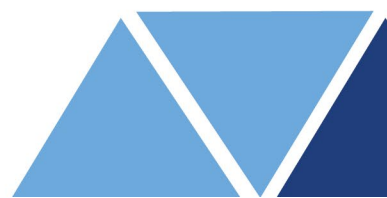
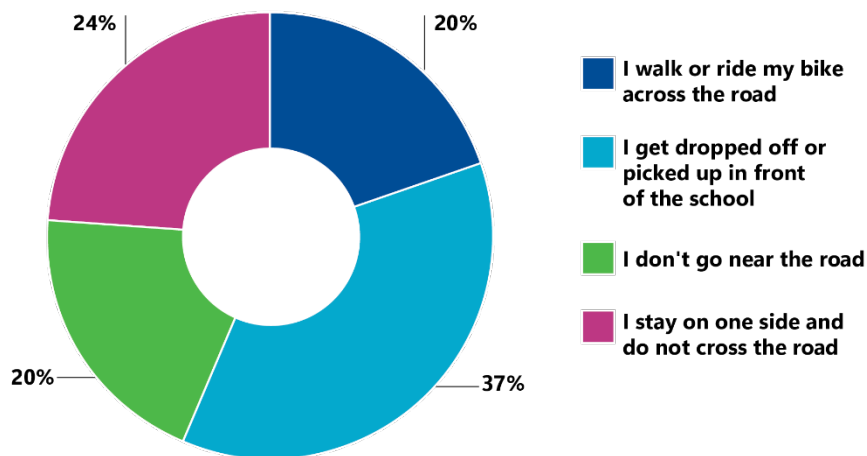
### 3.1. Maxwell Elementary School Student Survey

The project team developed a special survey that was administered to the 5<sup>th</sup> grade students at Maxwell Elementary School to get their unique perspective on interactions with Rock Boulevard in front of the school. A copy of the survey is included in Attachment C. The figures below represent the results for the 51 surveys received.

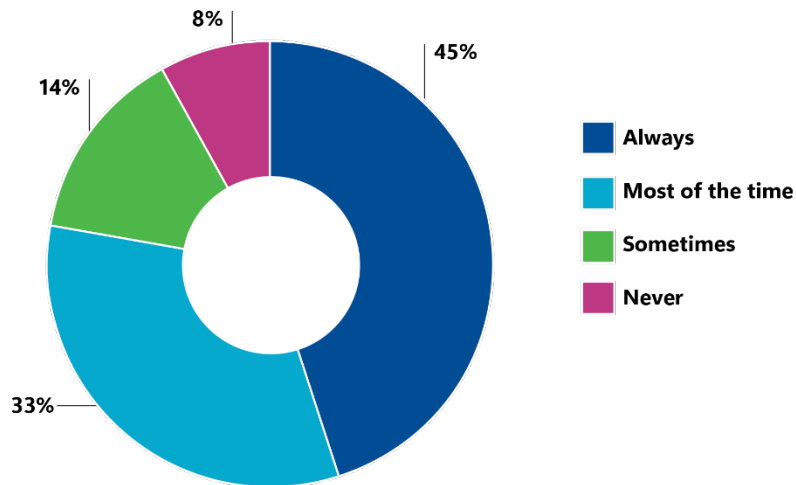
**How do you usually get to school?**



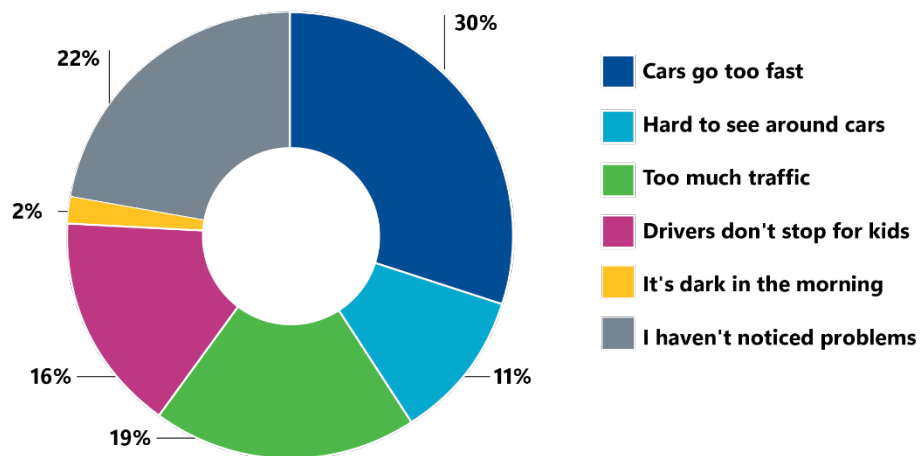
**When you arrive at school, how do you cross or use the road (Rock Blvd) in front of the school?**



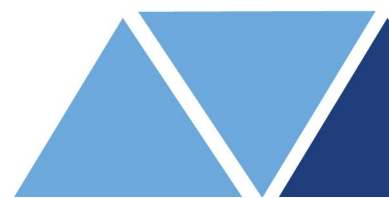
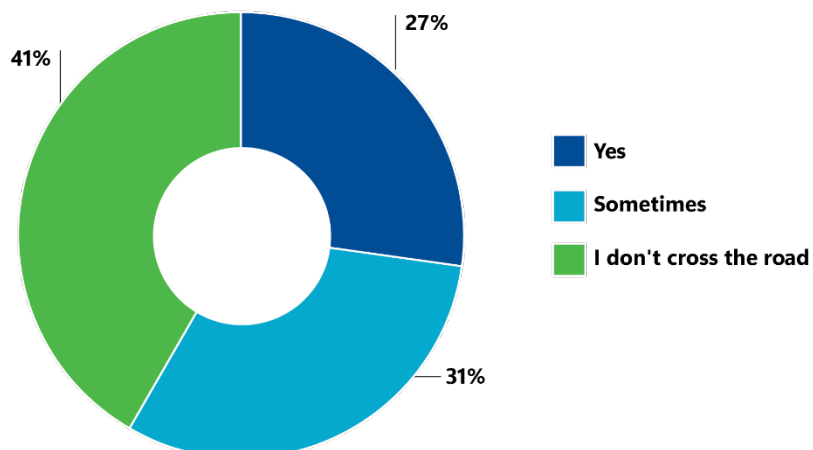
**Do you feel safe near the road in front of the school?**



**What problems have you noticed on Rock Blvd?**

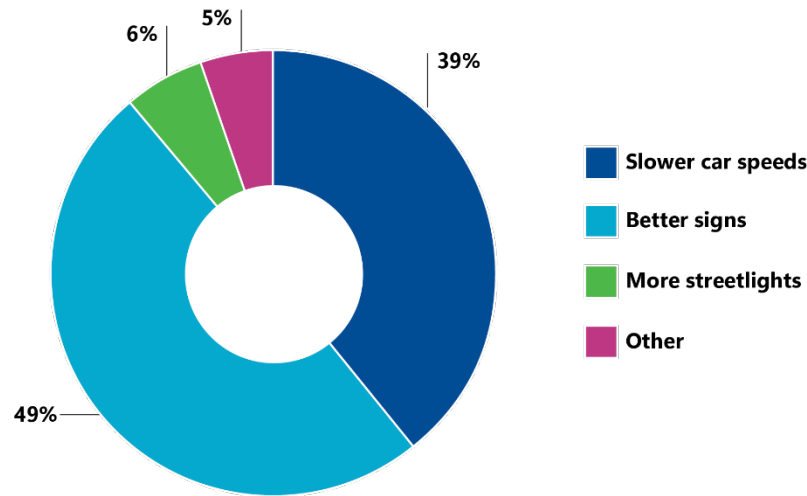


**Is it easy to cross the road in front of the school?**





What would make the road in front of the school feel safer to you?

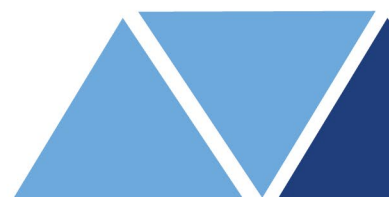


## 3.2. Online Survey

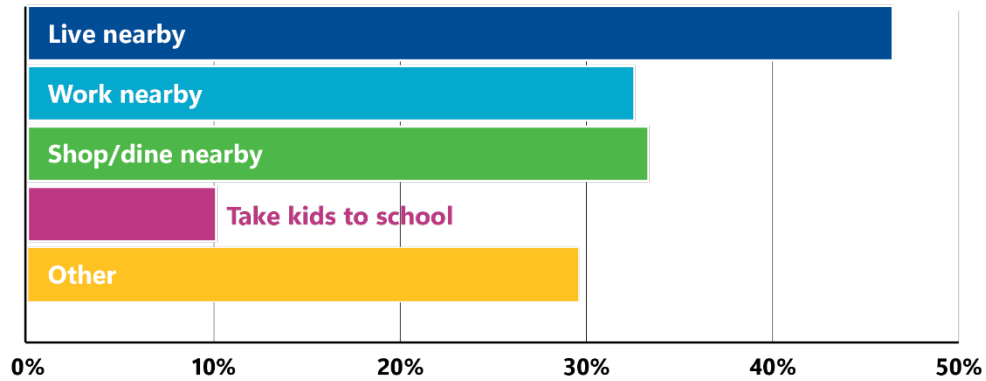
An online survey was also developed for people living, working, and travelling through the corridor. This survey was made available in both English and Spanish versions, shown in Attachment B, and was open from March 16, 2026, through April 30, 2026.

Promotion of the surveys occurred at the Maxwell Elementary School Art Night event, Sparks High School Student Voice meeting, and Centennial Plaza information event, as well as through the distribution of digital and hard copy informational flyers in English and Spanish shown in Attachment A. The flyers included a QR code to provide direct access to the online survey. The flyers were posted on the RTC project website (along with the survey itself) and through social media outlets and distribution lists. Additionally, RTC staff distributed paper versions of the flyers to local businesses and institutions along the project corridor. Locations were chosen that experience high levels of foot traffic and frequent visitation, providing a greater likelihood of reaching people living and working along the corridor.

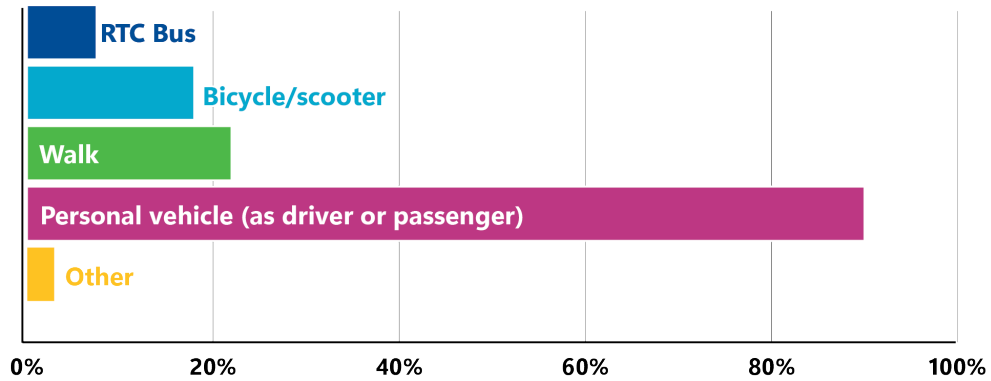
The project team received 267 survey responses, which are summarized below.



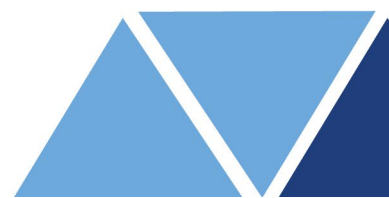
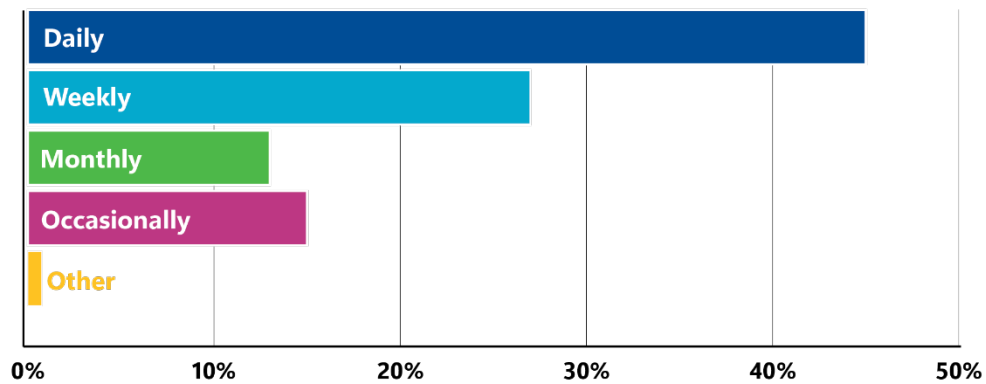
## Why do you use Rock Boulevard? (check all that apply)



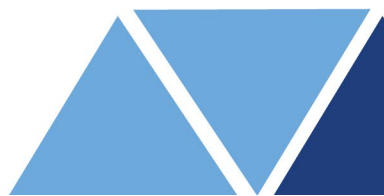
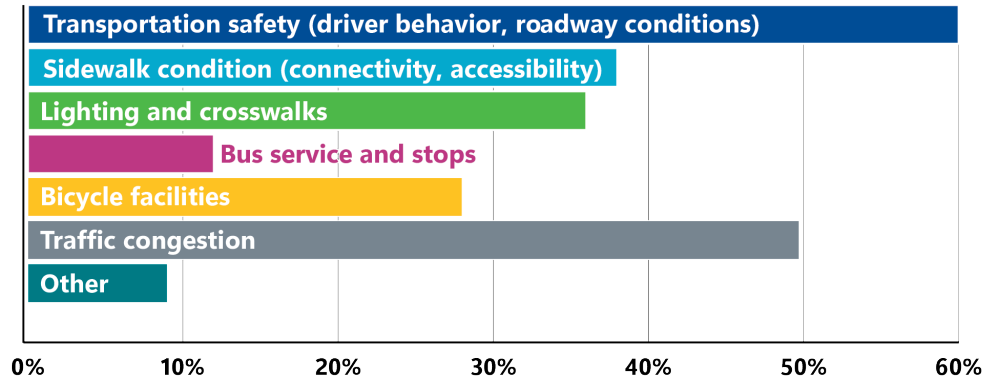
## How do you travel along Rock Boulevard? (check the two methods you use most)



## How often do you travel along Rock Boulevard? (select one)



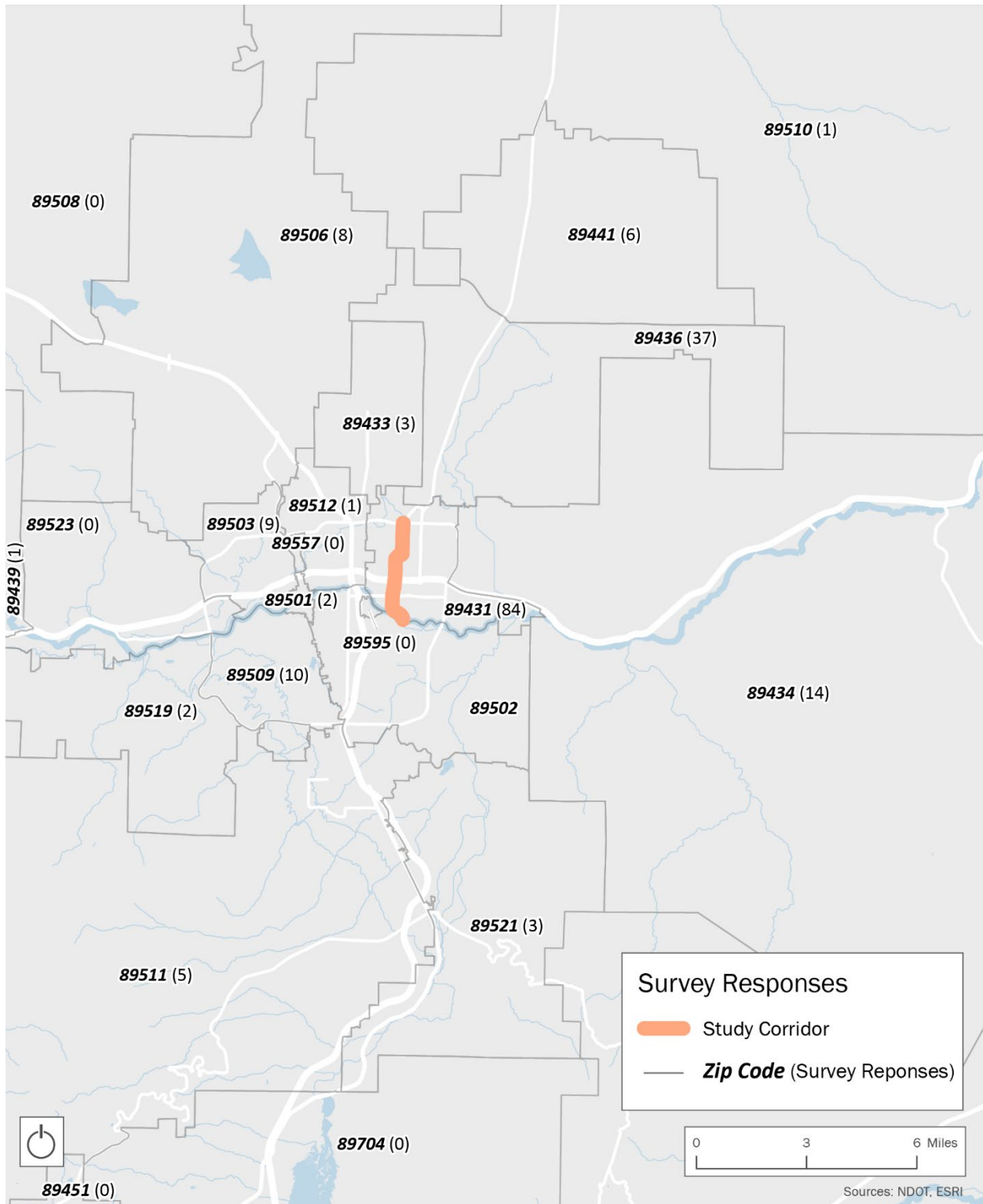
What are the greatest needs or concerns in the Rock Boulevard corridor?  
(select up to three)





## In what zip code do you live? (optional)

The map below shows survey respondents by zip code in the vicinity of the project area for those who chose to provide this information. There were three additional respondents from zip codes further away.

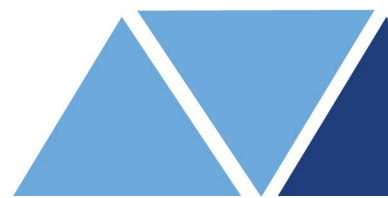


**To receive news about this study, please enter your email address. (optional)**

Approximately 36% of survey participants provided an email address to remain informed of the Rock Boulevard Study.

**General Themes from Question #7 “Please write any additional comments below”**

1. Pedestrian Safety Is a Major Concern - The most common theme was concern for pedestrian safety, especially around schools, intersections, and freeway areas.
  - Key concerns included:
    - Dangerous crosswalks
    - Failure of drivers to stop for pedestrians
    - Lack of flashing pedestrian signals
    - Poor lighting and visibility
    - Unsafe conditions for children traveling to school
  - Frequently mentioned locations:
    - Greenbrae Drive and Rock Boulevard – top concern, request for improved intersection controls
    - I Street crosswalk
    - Area near Alice Maxwell Elementary School
    - I-80 interchange/underpass – active transportation safety/security, traffic congestion, and flooding concerns
2. Desire for Safer Bicycle Infrastructure
  - Stated need for protected or continuous bike lanes
  - Better access to parks, schools, and transit
3. Traffic Congestion and Signal Timing Problems
  - Congestion was one of the strongest recurring operational concerns. Key issues included:
    - Heavy congestion near I-80 ramps
    - Backups at left-turn lanes
    - Poor signal coordination/synchronization
    - Bottlenecks near schools and major intersections
  - Frequently mentioned locations:
    - I-80 interchange



- Prater Way to Greg Street
- Victorian Avenue area
- Rock Boulevard and Hymer Avenue
- Rock Boulevard and McCarran Boulevard

4. Speeding and Aggressive Driving.

- Issues included:
  - Speeding through school zones
  - Aggressive driving
  - Illegal U-turns
  - Drivers blocking intersections
  - Failure to yield

5. Mixed Opinions on Vehicle Capacity (approximately 31% of statements) vs. Multimodal Improvements (approximately 68% of statements)

- Capacity Priorities:
  - Widening roads
  - Maintaining or increasing lane capacity
  - Faster traffic flow
  - Opposition to lane reductions or bike lanes
  - Signal timing improvements focused on throughput
- Multimodal Priorities:
  - Protected bike lanes
  - Better sidewalks and crossings
  - Traffic calming
  - Transit improvements and amenities
  - Pedestrian-first design
  - Reduced speeds and safer school access



## 4. Agency and Stakeholder Engagement

Stakeholders include individuals or organizations that may be directly or indirectly impacted by the project. The term also includes those who represent or have an interest in the project area, including elected officials who represent constituents within the project areas, residents living in the project areas, commuters, partner and regulatory agencies, and businesses.

The project team worked closely with RTC staff, including representatives from Planning, Engineering, and Communication departments, as well as representatives of the City of Sparks, Nevada Department of Transportation, and Washoe County School District.

### 4.1 Technical Advisory Committee

A Technical Advisory Committee (TAC) was formed to provide input about key project concepts and deliverables throughout the study development process. A kick-off meeting was held in October 2025 and subsequent meetings were held in January, April, and June of 2026 to report out and receive feedback on critical project updates and overall progress. A list of the project TAC members is provided in **Table 1**.

**Table 1. Technical Advisory Committee Members**

| Name              | Agency/Organization                           |
|-------------------|-----------------------------------------------|
| Vanessa Lacer     | RTC Washoe – Planning Director                |
| Graham Dollarhide | RTC Washoe – Planning Manager                 |
| Shay League       | RTC Washoe – Senior Transportation Planner    |
| Marquis Williams  | RTC Washoe – Senior Transportation Planner    |
| Jeff Wilbrecht    | RTC Washoe – Engineering Manager              |
| Sara Going        | RTC Washoe – Engineering Project Manager      |
| Josh MacEachern   | RTC Washoe – Public Information Officer       |
| Scott Carey       | City of Sparks – Development Services Manager |
| Amber Sosa        | City of Sparks – City Engineer                |
| Andrew Jayankura  | City of Sparks – Transportation Manager       |
| Jeff Bickett      | City of Sparks – Traffic Engineer             |
| Julie Duewel      | City of Sparks – Communications Manager       |
| Nick Johnson      | NDOT – Project Management Chief               |
| Christine Chia    | NDOT – Senior Project Manager                 |

## **4.2 City of Sparks Field Review**

The project team met with the City of Sparks Development Services Manager on February 13, 2026, and conducted a driving review / tour of the corridor and study area to obtain site-specific feedback on thoughts, concerns, and insights into the corridor. City staff's primary concerns and feedback were:

- Interest in safer multimodal travel from the Truckee River to areas north of I-80
- Congestion between Greg Street and Victorian Avenue
- Crosswalks/safety in the area north of Prater Way
- Pedestrian safety for traveling to Sparks High School

## **4.3 Washoe County School District Staff Meeting**

The project team met with Washoe County School District (WCSD) staff, including the School Property Planning Manager and a Safe Routes to School Coordinator, on May 4, 2026, to discuss project background and preliminary findings as well as to receive input on the study. Several schools within the corridor area are being considered for repurposing or reconstruction, but final decisions have not been made about any of the schools at the time of the coordination meeting. WCSD staff shared concerns about specific locations on Rock Boulevard near Maxwell Elementary School and Sparks High School, including driver behavior (speeding and not yielding to pedestrians) and sight distance issues. Items mentioned include:

- Safety concerns about the crosswalk on 15th Street.
- The Safe Routes to School team prefers installation of RRFBs on Rock Boulevard at both G and I Streets.
- Students at Maxwell Elementary primarily use the crosswalk in front of the school.

## APPENDIX B

### Existing Conditions





## TRAFFIC COUNT DATA SOURCES

Existing traffic data sources were reviewed from the Nevada Department of Transportation (NDOT) Traffic Records Information Access (TRINA), RTC Open Data, and other previous studies including turning movement counts (TMC's) from the NDOT Reno Spaghetti Bowl traffic study. The data is summarized below and the existing count data locations are shown on **Exhibit B-1**.

### **NDOT TRINA**

There are six TRINA count stations within the study corridor, each with Annual Average Daily Traffic volumes (AADTs) spanning at least 2014-2024, and hourly volume reports, as shown in **Table B-1** and **Exhibit B-1**.

**Table B-1: NDOT TRINA Stations**

| Station | Street                          | Hourly Reports |
|---------|---------------------------------|----------------|
| 310619  | Rock Blvd – Oddie to McCarran   | Jun-24         |
| 310617  | Rock Blvd – Prater to Oddie     | Jun-24         |
| 310586  | Rock Blvd – Victorian to Prater | Jun-24         |
| 310298  | Rock Blvd – Glendale to I80     | May-24         |
| 310585  | Rock Blvd – Greg to Glendale    | May-24         |
| 310584  | Rock Blvd – Mill to Greg        | May-24         |

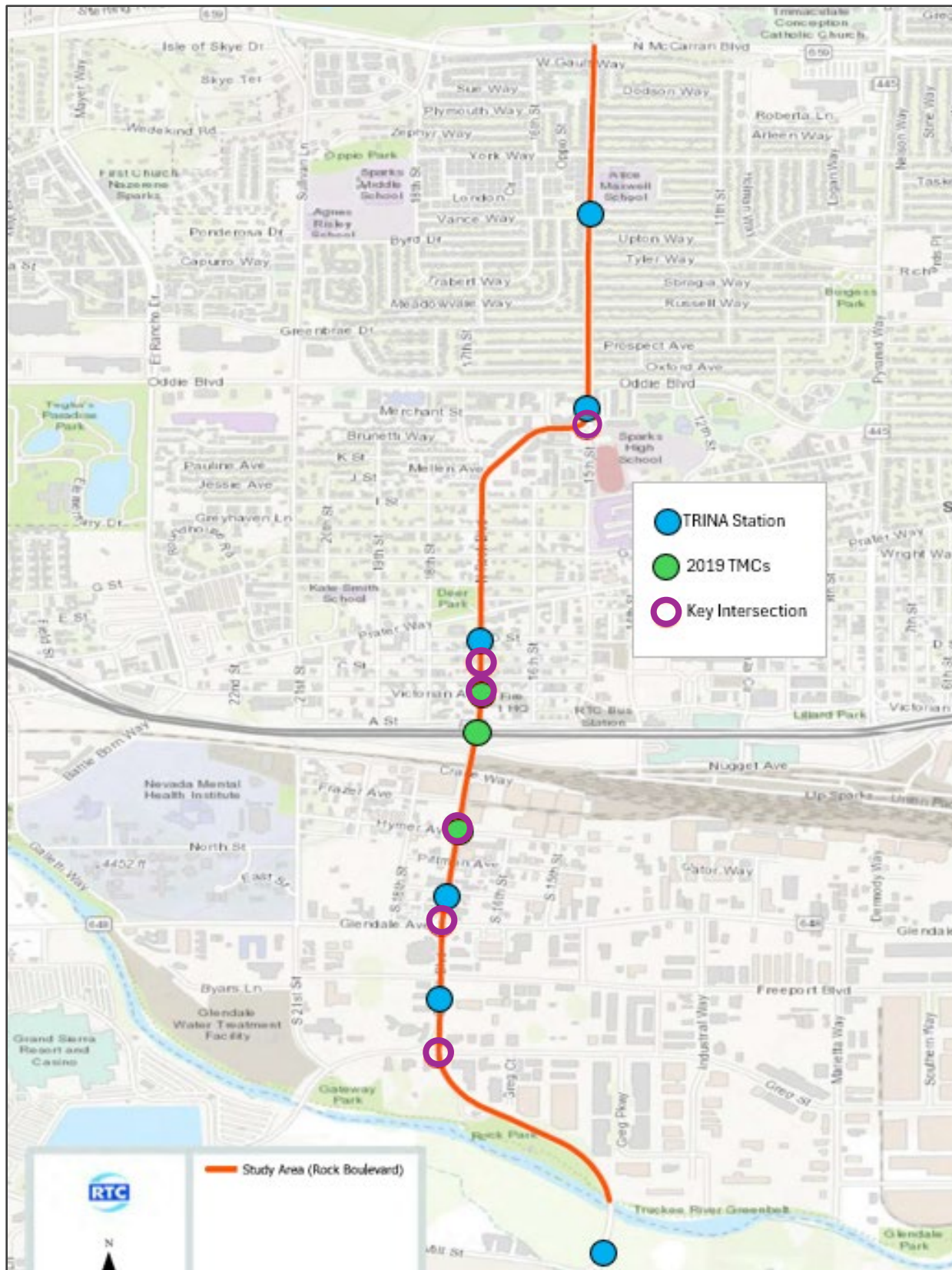


Exhibit B-1. Count Data Sources

These count stations indicate that little to no, or negative traffic volume growth (traffic decrease), has occurred in the corridor over the past 10 years, as shown in **Table B-2**. Traffic volumes have increased slightly over the last five years between Greg Street and Glendale Avenue.

**Table B-2: AADT Volume Changes based on TRINA Stations**

| Station →                  | 310619            |      | 310617          |      | 310586              |      | 310298           |      | 310585           |      | 310584       |      |
|----------------------------|-------------------|------|-----------------|------|---------------------|------|------------------|------|------------------|------|--------------|------|
| Segment →                  | Oddie to McCarran |      | Prater to Oddie |      | Victorian to Prater |      | Glendale to I-80 |      | Greg to Glendale |      | Mill to Greg |      |
| Year                       |                   |      |                 |      |                     |      |                  |      |                  |      |              |      |
| 2014                       | 6,700             |      | 11,000          |      | 12,500              |      | 20,000           |      | 14,500           |      | 8,600        |      |
| 2015                       | 7,100             | 6%   | 11,500          | 5%   | 13,000              | 4%   | 22,000           | 10%  | 15,500           | 7%   | 8,700        | 1%   |
| 2016                       | 6,300             | -11% | 10,000          | -13% | 13,000              | 0%   | 22,000           | 0%   | 15,500           | 0%   | 9,400        | 8%   |
| 2017                       | 5,800             | -8%  | 9,800           | -2%  | 10,000              | -23% | 23,100           | 5%   | 16,100           | 4%   | 5,700        | -39% |
| 2018                       | 6,900             | 19%  | 12,000          | 22%  | 14,200              | 42%  | 18,800           | -19% | 12,100           | -25% | 8,200        | 44%  |
| 2019                       | 7,300             | 6%   | 11,500          | -4%  | 13,400              | -6%  | 19,300           | 3%   | 12,400           | 2%   | 8,500        | 4%   |
| 2020                       | 6,600             | -10% | 10,500          | -9%  | 12,700              | -5%  | 18,200           | -6%  | 13,200           | 6%   | 7,250        | -15% |
| 2021                       | 6,100             | -8%  | 9,450           | -10% | 11,400              | -10% | 21,800           | 20%  | 16,100           | 22%  | 8,750        | 21%  |
| 2022                       | 5,650             | -7%  | 9,300           | -2%  | 11,300              | -1%  | 17,800           | -18% | 15,800           | -2%  | 8,600        | -2%  |
| 2023                       | 6,900             | 22%  | 10,400          | 12%  | 11,300              | 0%   | 17,000           | -4%  | 12,300           | -22% | 6,500        | -24% |
| 2024                       | 6,550             | -5%  | 9,550           | -8%  | 11,600              | 3%   | 18,400           | 8%   | 12,900           | 5%   | 7,250        | 12%  |
| 5 Year Growth (2019-2024)  | -2.14%            |      | -3.65%          |      | -2.84%              |      | -0.95%           |      | 0.79%            |      | -3.13%       |      |
| 10 Year Growth (2014-2024) | -0.23%            |      | -1.40%          |      | -0.74%              |      | -0.83%           |      | -1.16%           |      | -1.69%       |      |

The hourly count reports indicate that the AM peak hour has remained consistent, ranging from a start time of 7:00 AM to 7:30 AM, and most frequently occurring from 7:15 AM - 8:15 AM. The PM peak hours vary slightly by location, all starting between 3:00 PM and 5:00 PM, with the peak hour typically occurring from 4:00 PM – 5:00 PM.

The NDOT count station data is deemed comprehensive enough to evaluate the various road segments at a planning level.

### RTC Counts

The RTC Open Data Traffic Count map did not include any data on the study corridor.



### ***NDOT I-80 Spaghetti Bowl Study<sup>1</sup>***

The *Reno Spaghetti Bowl Project - Traffic Analysis Report* includes turning movement counts (TMCs) from

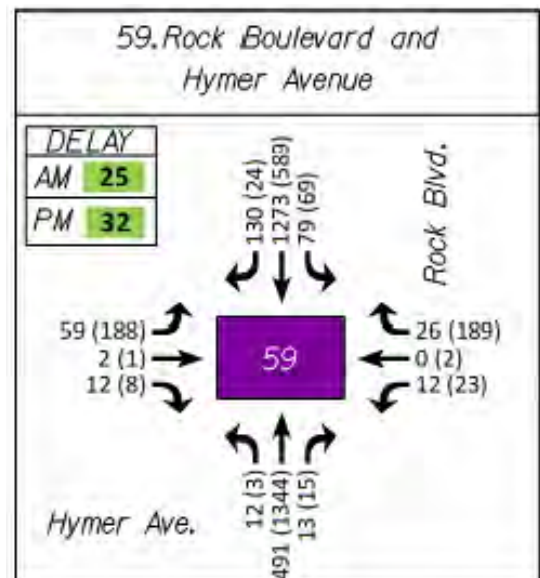
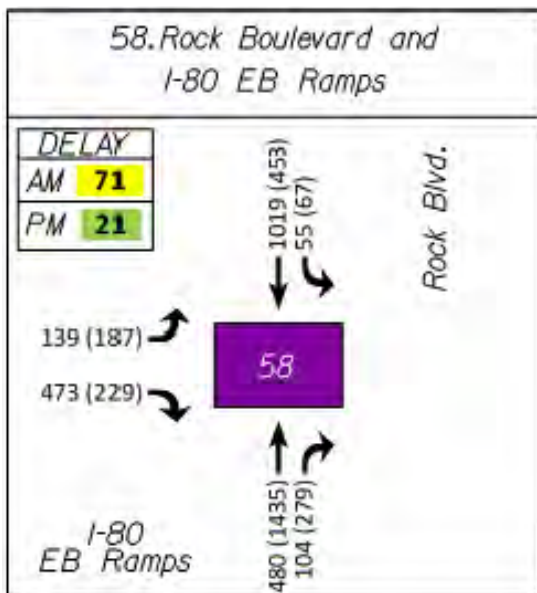
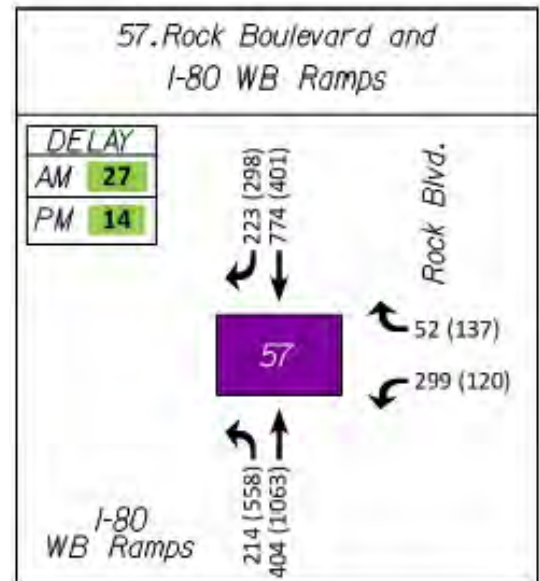
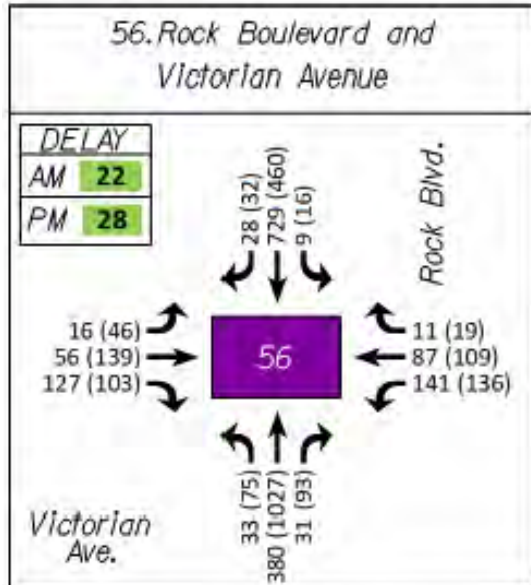
- Rock Boulevard / Victorian Avenue
- Rock Boulevard / I-80 WB Ramps
- Rock Boulevard / I-80 EB Ramps
- Rock Boulevard / Hymer Avenue

The 2019 and projected 2040 volumes are shown in **Exhibits B-2 and B-3** respectively. The 2019 counts are

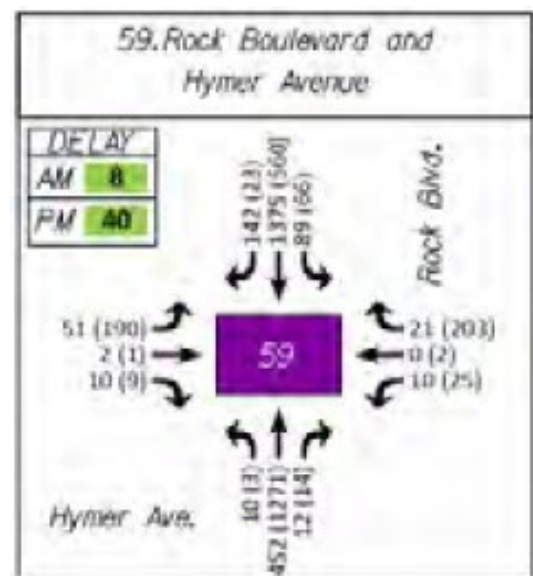
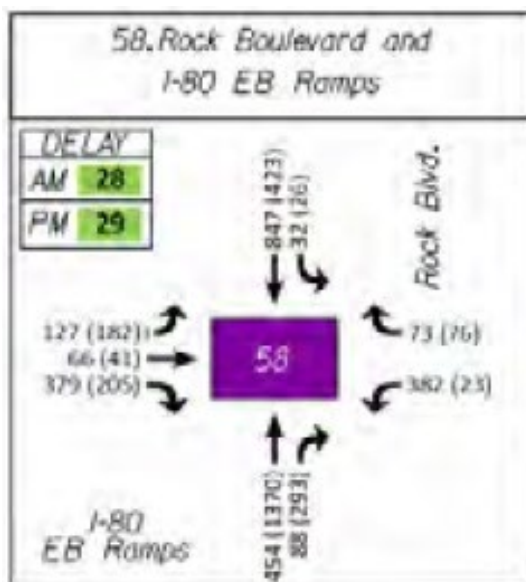
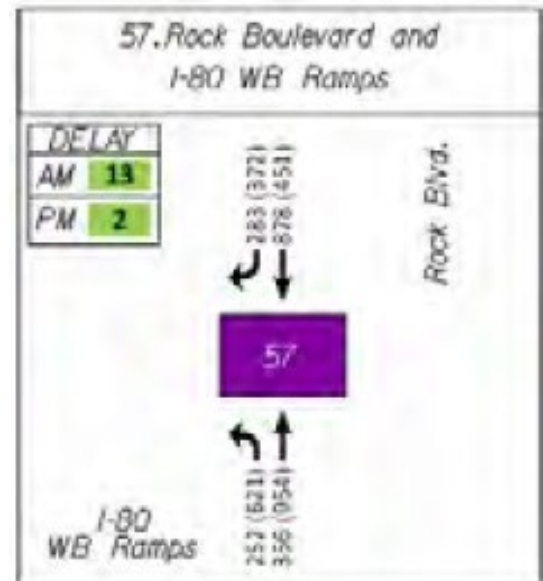
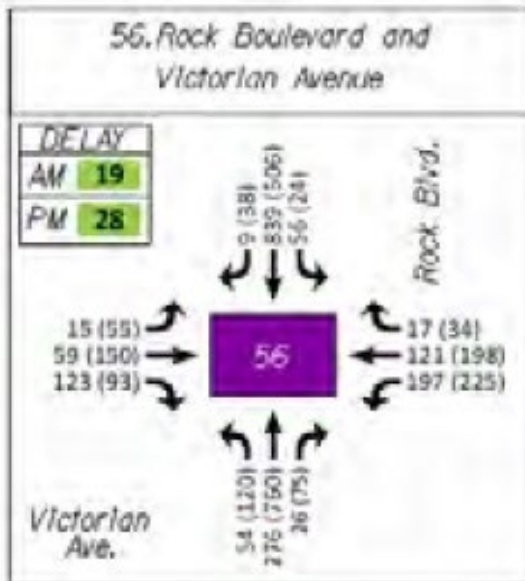
It should be noted that NDOT is performing a NEPA Reevaluation for the Spaghetti Bowl Phase 2 project and

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<sup>1</sup> <https://www.dot.nv.gov/home/showpublisheddocument/21461/638140388867200000>



**Exhibit B-2: 2019 Counts**  
(Source: Reno Spaghetti Bowl Project – Traffic Analysis Report)



**Exhibit B-3: 2040 Traffic Volumes – Preferred Alternative (Alternative 2)**  
 (Source: Reno Spaghetti Bowl Project – Traffic Analysis Report)

## EXISTING INFRASTRUCTURE INVENTORY

### ***Roadway Facilities***

Rock Boulevard within the study corridor is a north-south arterial that runs from N. McCarran Boulevard to the Truckee River and beyond. In general, the corridor is a four-lane roadway with two lanes in each direction and turn lanes at major intersections. The 2050 RTP classifies Rock Boulevard as a Low Access Control (LAC) Arterial between N. McCarran Boulevard and Prater Way and as a Moderate Access Control (MAC) Arterial between Prater Way and the Truckee River.

### ***Speed Limits***

The posted speed limit on Rock Boulevard is 25 mph between N. McCarran Boulevard and Oddie Boulevard. A 15 mph school zone also exists on Rock Boulevard within this segment between N. McCarran Boulevard and Oddie Boulevard. The posted speed limit on Rock Boulevard is 30 mph for the remainder of the study corridor between Oddie Boulevard and the Truckee River.

### ***Pavement Conditions***

Existing pavement conditions on Rock Boulevard were obtained from the City of Sparks online GIS database. Per the data available, the pavement conditions on Rock Boulevard are generally adequate (only preventive maintenance as needed is programmed) and the roadway has a Pavement Condition Index (PCI) between 65 and 100.

### ***Corridor Lighting***

Corridor lighting is generally provided on both sides of Rock Boulevard within the study corridor. Where provided on both sides of the roadway, lighting is generally consistently spaced with consistent lighting levels. Three segments on Rock Boulevard currently have gaps in corridor lighting 1) east side between N. McCarran Boulevard and Oddie Boulevard 2) at the I-80 interchange 3) west side immediately south of Greg Street. Existing overhead power lines and available right-of-way may be constraints with any proposed street lighting improvements.

## EXISTING MULTIMODAL NETWORK

### ***Pedestrian Facilities***

The pedestrian experience index (PEI) measures the level of comfort for pedestrians on a given street segment, taking into account factors such as the presence and width of sidewalks, traffic volumes and speeds, and the separation between sidewalks and the street. RTC's Active Transportation Plan defines PEI as:

- PEI 21 – 40: Sidewalks when present are between 4 – 6 feet and may be intermittent, buffers between vehicles and pedestrians are not typical, and roadways high multiple vehicle lanes of high speed traffic
- PEI 41 – 60: Sidewalks are typically 5-6 feet wide and present on one or both sides, buffers between vehicles and pedestrians may be intermittent or speeds and number of lanes may be higher
- PEI 60 – 85: Sidewalks are typically 5-6 feet wide and present on both sides with buffers (landscaping or on-street parking) between people walking and high-speed vehicles or a low posted speed



A PEI analysis conducted for the RTC Active Transportation Plan and field tour of the corridor indicate that the corridor is generally not comfortable for walking. This is particularly pronounced on the southern end of the corridor where sidewalks are not always present, especially south of Greg Street. Likewise, the street segment between Freeport Boulevard and Glendale Avenue scores the lowest on the PEI due to a lack of sidewalks and relatively high traffic volumes. The I-80 interchange area is also poor for pedestrians due to a lack of sidewalks on the east side of the street, higher traffic volumes, and many vehicle turning movements. Further north along the corridor, walking conditions generally improve with more consistent sidewalk coverage, lower traffic volumes, and slower speeds. This is especially true north of Oddie Boulevard, where the speed limit decreases to 25 MPH and where the school zone for Maxwell Elementary School is located, as shown in **Exhibit B-4**.

Notable gaps in the sidewalk network include the following:

- South of Greg Street
- Freeport Boulevard to Glendale Avenue
- Hymer Avenue to Victorian Avenue (no continuous sidewalk on east side, west side provides connectivity but is not sufficient)

There are several school zones in proximity to the Rock Boulevard corridor; however, Maxwell Elementary School is the only school located directly adjacent to the roadway. Other nearby schools include Risley, Mitchell, and Kate Smith Elementary Schools; Sparks Middle School; and Sparks High School. The zoning boundaries for each of these schools either intersect, run adjacent to, or fully contain the Rock Boulevard study area north of I-80. There is high student walking potential for these schools since many are located in residential neighborhoods.

A field tour and map analysis of the corridor identified potential challenges for pedestrians. The intersection with 15th Street at the north end of Sparks High School lacks accessible sidewalks and marked crossings. There is a crosswalk on Rock Boulevard at Commerce Street with overhead pedestrian flashers which serves as the main crossing for pedestrians wishing to access 15th Street.

Other intersections which may lack signage and markings include Tyler Way (no crosswalk on Rock Boulevard) and I, H, and F Streets (no crosswalk on side streets). These intersections provide access to RTC bus stops or key destinations such as Sparks High School and Deer Park.

The intersection with Greg Street does not have a curb ramp at the southeast corner. While the sidewalk does not continue in either direction from this location, the existing crosswalks should have a curb ramp at either end. Additionally, there is a free right turn lane at the northwest corner of the intersection which poses potential sight line issues and high speeds for pedestrians to navigate. A similar situation exists at all legs of the intersection with Glendale Avenue, though the crosswalks are better marked.

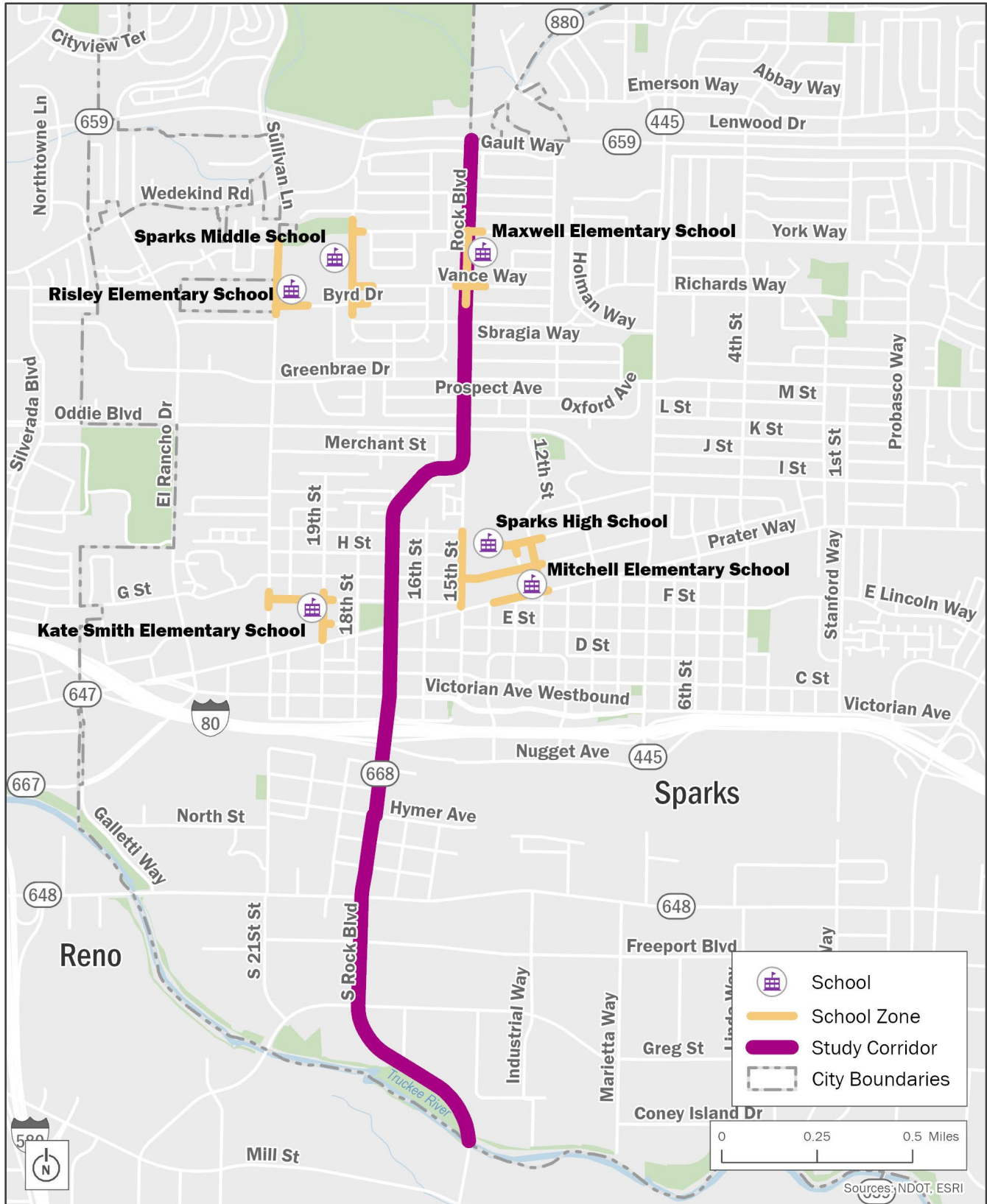


Exhibit B-4. School Zones

## Bicycle Facilities

There are no existing bicycle facilities (**Exhibit B-5**) on much of Rock Boulevard within the corridor study area except for the section between the Truckee River and Rock Park. There are no dedicated bike facilities for bicyclists wishing to access Rock Park from the north, which presents a significant barrier to use of the Tahoe-Pyramid Trail. As shown in **Exhibit B-6**, there are bike lanes on some intersecting streets such Prater Way and McCarran Boulevard, as well as the Tahoe-Pyramid Trail, an off-street multi-use path along the river at the southern end of the corridor. RTC's Active Transportation Plan defines BLTS as:

- BLTS 1: Roadways where bicyclists of all ages and abilities would feel comfortable riding; separated shared-use paths and separated bike lanes for bicycles also fall into this category.
- BLTS 2: Slightly less comfortable roadways, where most adults would feel comfortable riding.
- BLTS 3: Moderately uncomfortable roadways, where most experienced bicyclists would feel comfortable riding.
- BLTS 4: High-stress roadways where only strong and fearless bicyclists would feel comfortable riding. These roadways are generally characterized by high volumes, high speeds, several travel lanes, and complex transitions approaching and crossing intersections.

The lack of bike facilities on Rock Boulevard and high traffic volumes contribute to its high Bicycle Level of Traffic Stress (BLTS) score, which measures the level of comfort for riding a bike on a particular street (higher scores indicate higher stress environments for riding a bike). As identified in the RTC Active Transportation Plan, most of the corridor has a BLTS score of 4, which indicates that it is the most stressful environment to ride a bike. This reflects the lack of bicycle facilities, relatively higher traffic volumes, and high traffic speeds. The northern (north of Oddie Boulevard) and southern (south of Greg Street) segments of the corridor have a slightly lower BLTS score of 3, due to lower traffic volumes, but overall, these sections still present a challenging bike riding environment for most users.



**Exhibit B-5. Northbound Rock Boulevard at Prater Way**



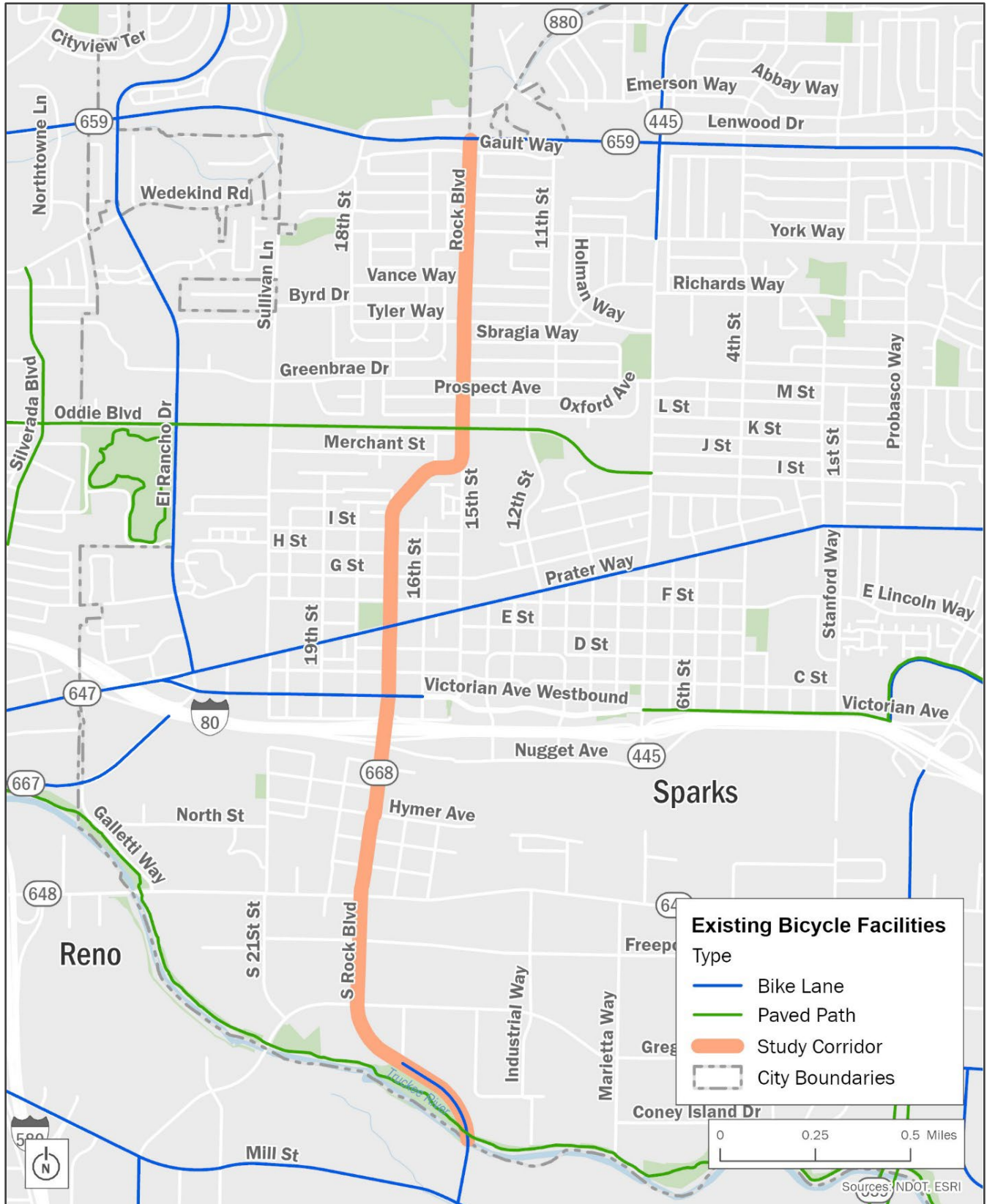


Exhibit B-6. Existing Bicycle Facilities



## APPENDIX C

### **Crash Data**



## CRASH ANALYSIS

Crash data for the section of Rock Boulevard between North McCarran Boulevard and the Truckee River was obtained from the Nevada Department of Transportation (NDOT) for the 2019-2023 period. During this time, there were 456 total crashes reported. Of those, there were four fatalities and nine serious injuries.

Regarding crash type, angle crashes were the most common, representing 45% of total crashes. Rear end crashes were the second most common, representing 29% of total crashes. **Table C-1** provides a summary of all crash types.

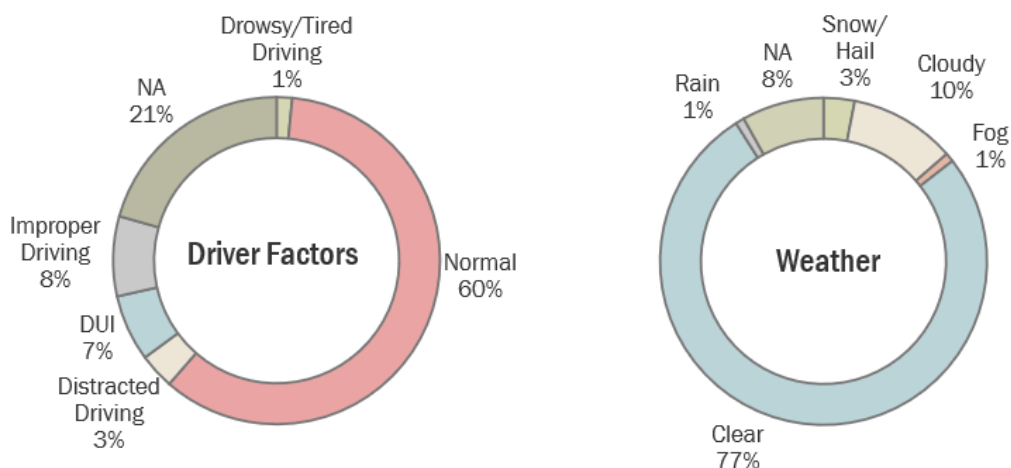
**Table C-1: Crashes by Type**

| Crash Type             | Number of Crashes | Percentage of Crashes |
|------------------------|-------------------|-----------------------|
| Angle                  | 206               | 45%                   |
| Backing                | 7                 | 2%                    |
| Head On                | 6                 | 1%                    |
| Non-Collision          | 46                | 10%                   |
| Rear End               | 133               | 29%                   |
| Sideswipe – Meeting    | 27                | 6%                    |
| Sideswipe – Overtaking | 20                | 4%                    |
| Unknown                | 10                | 2%                    |
| Total                  | 456               | 100%                  |

When looking at road user types, crashes involving vulnerable road users (VRUs), generally considered those using active transportation modes such as walking and bicycling, primarily occurred at intersections or at the I-80 interchange. VRUs represent half of the four fatalities, one involving a pedestrian, and one involving a bicyclist, and all nine serious injury crashes involved VRUs.

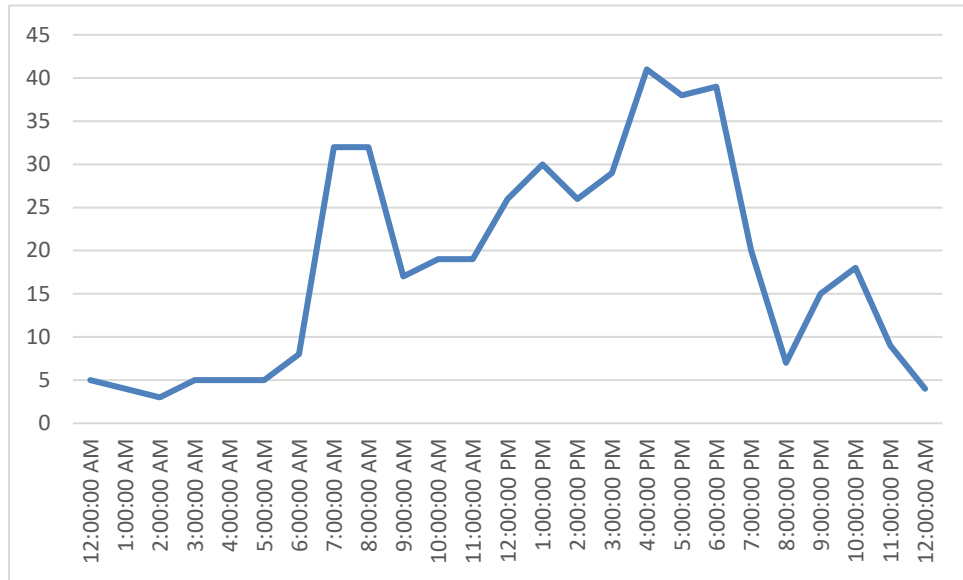
Similarly, most vehicle crashes occurred at intersections (89%). The three intersections along Rock Boulevard with the most crashes are Oddie Boulevard (36), Victorian Avenue (35), and Greenbrae Drive (27), representing 21% of all crashes.

When looking at potential contributing factors, 16 crashes reported distracted driving and 30 crashes reported impaired driving, with alcohol as the most common reason for impairment. **Exhibit C-1** provides a breakdown of driver and environmental conditions for all crashes.



**Exhibit C-1: Driver and Environmental Factors**

When looking at the time of day that crashes occurred during the 2019-2023 period, the highest number of crashes (26%) occurred between the hours of 4 p.m. and 6 p.m., coinciding with afternoon/evening peak commute period. **Exhibit C-2** shows the average number of crashes by hour over a 24-hour period.



**Exhibit C-2: Average Number of Crashes by Time of Day**

## SUPPLEMENTAL CRASH DATA

More recent crash data was received from the City of Sparks Police Department. The data analyzed was from crashes that occurred in 2024 and 2025. The attribute data reported varies from that collected by NDOT, so direct comparisons were not made. City of Sparks reported crashes are generally distributed evenly throughout the corridor study area. One item to note is that approximately 33% of the crashes reported were classified as hit and run crashes.

## APPENDIX D

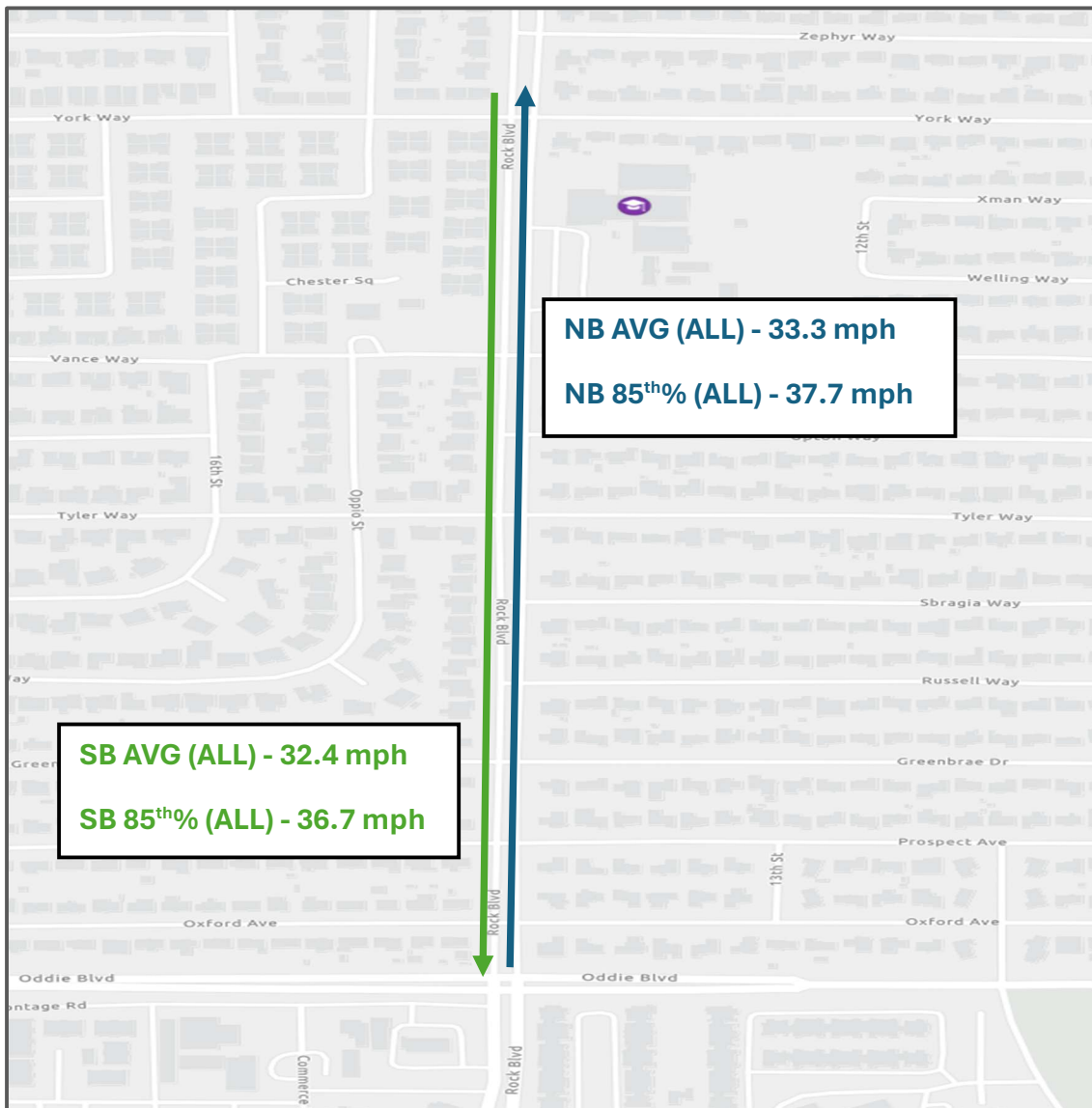
### **Speed Data**





## Rock Blvd Speed Survey

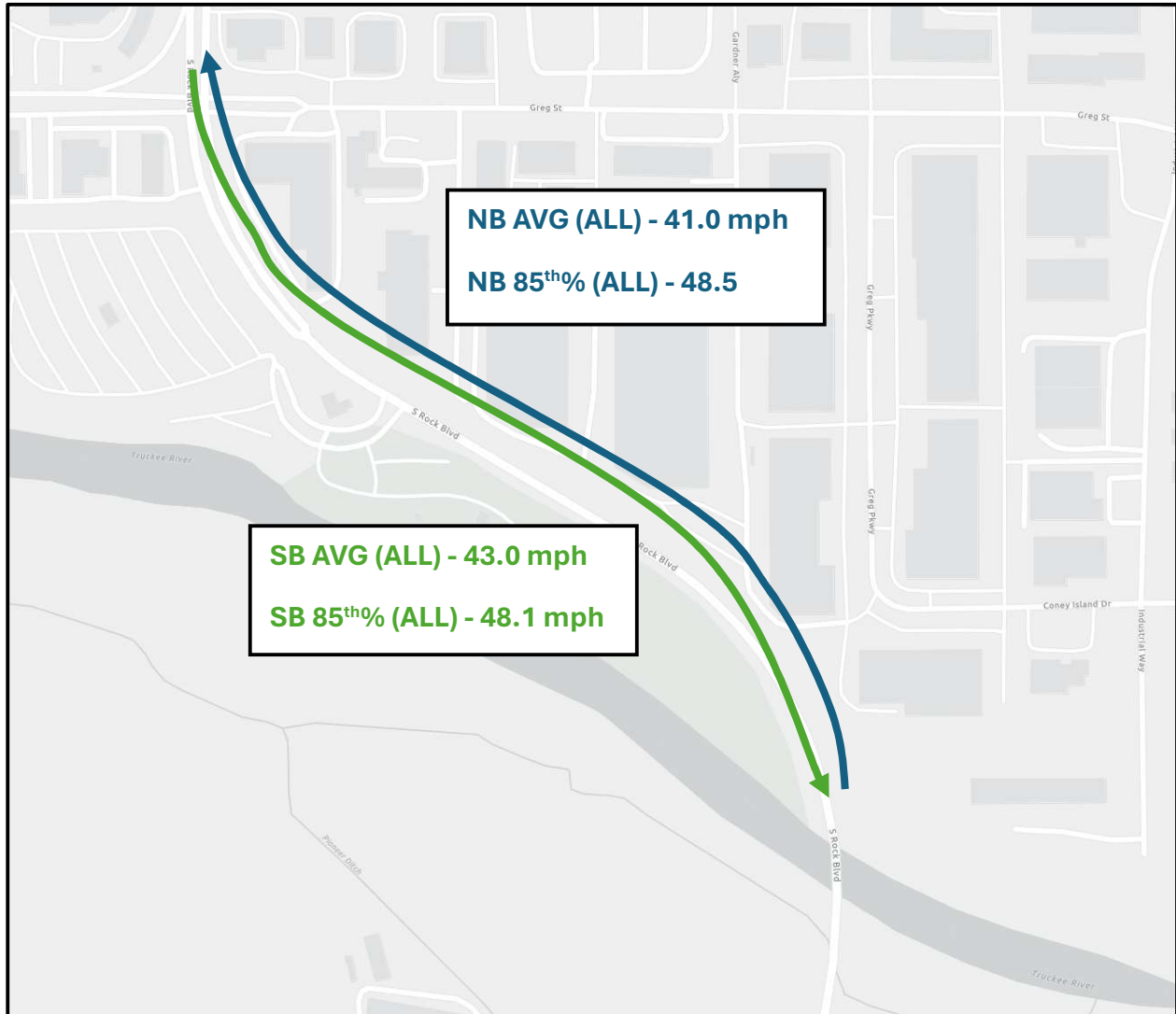
### Location 1: (York Way to Oddie Blvd)



| Direction              | Posted Speed Limit (mph) | Average Speed (mph) | 85 <sup>th</sup> Percentile Speed (mph) | Total Volume |
|------------------------|--------------------------|---------------------|-----------------------------------------|--------------|
| Rock Blvd, Northbound  | 30                       | 33.3                | 37.7                                    | 495          |
| Rock Blvd, Southbound  | 30                       | 32.4                | 36.7                                    | 640          |
| <b>Rock Blvd Total</b> | <b>30</b>                | <b>33.3</b>         | <b>37.2</b>                             | <b>1,135</b> |

## Rock Blvd Speed Survey

### Location 2: (Greg St to Truckee River)



| Direction              | Posted Speed Limit (mph) | Average Speed (mph) | 85 <sup>th</sup> Percentile Speed (mph) | Total Volume |
|------------------------|--------------------------|---------------------|-----------------------------------------|--------------|
| Rock Blvd, Northbound  | 45                       | 41.0                | 48.5                                    | 1,241        |
| Rock Blvd, Southbound  | 30                       | 43.0                | 48.1                                    | 1,227        |
| <b>Rock Blvd Total</b> | <b>45</b>                | <b>42.0</b>         | <b>48.5</b>                             | <b>2,468</b> |

**Rock Blvd Speed Survey****Location 1 Data Tables**

| FEATURE NAME            | VEHICLE TYPE | TOTAL VOLUME | AVG SPEED (MPH) | MEDIAN SPEED (MPH) | 85 <sup>TH</sup> PERCENTILE SPEED (MPH) | 15 <sup>TH</sup> PERCENTILE SPEED (MPH) | STD. DEV. SPEED (MPH) |
|-------------------------|--------------|--------------|-----------------|--------------------|-----------------------------------------|-----------------------------------------|-----------------------|
| Rock NB – York to Oddie | CAR          | 495          | 33.266          | 33.554             | 37.686                                  | 29.204                                  | 5.359                 |
| Rock NB – York to Oddie | ALL          | 495          | 33.266          | 33.554             | 37.686                                  | 29.204                                  | 5.359                 |
| Rock SB – York to Oddie | CAR          | 638          | 32.421          | 32.187             | 36.661                                  | 28.813                                  | 4.582                 |
| Rock SB – York to Oddie | HCV          | 2            | 17.756          | 15.13              | 20.381                                  | 15.13                                   | 3.713                 |
| Rock SB – York to Oddie | ALL          | 640          | 32.374          | 32.187             | 36.661                                  | 28.769                                  | 4.653                 |

## Rock Blvd Speed Survey

### Location 1 Data Tables

| FEATURE NAME               | VEHICLE TYPE | AVG. QUEUE LENGTH (FT) | MEDIAN QUEUE LENGTH (FT) | 85 <sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) | 15 <sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) | STD. DEV. QUEUE LENGTH (FT) | TRAVEL TIME 50 |
|----------------------------|--------------|------------------------|--------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------|----------------|
| Rock NB<br>– York to Oddie | CAR          | 265.862                | 33.116                   | 166.849                                       | 13.857                                        | 640.698                     | 60.6825        |
| Rock NB<br>– York to Oddie | ALL          | 265.862                | 33.116                   | 166.849                                       | 13.857                                        | 640.698                     | 60.6825        |
| Rock SB<br>– York to Oddie | CAR          | 203.106                | 37.141                   | 329.744                                       | 9.291                                         | 451.49                      | 57.05816       |
| Rock SB<br>– York to Oddie | HCV          | 325.22                 | 325.22                   | 325.22                                        | 325.22                                        | undefined                   | 129.5          |
| Rock SB<br>– York to Oddie | ALL          | 204.875                | 37.442                   | 329.744                                       | 9.291                                         | 448.399                     | 57.32897       |



**Rock Blvd Speed Survey****Location 2 Data Tables**

| FEATURE NAME               | VEHICLE TYPE | TOTAL VOLUME | AVG SPEED (MPH) | MEDIAN SPEED (MPH) | 85 <sup>TH</sup> PERCENTILE SPEED (MPH) | 15 <sup>TH</sup> PERCENTILE SPEED (MPH) | STD. DEV. SPEED (MPH) |
|----------------------------|--------------|--------------|-----------------|--------------------|-----------------------------------------|-----------------------------------------|-----------------------|
| Rock NB<br>- River to Greg | CAR          | 1220         | 41.129          | 43.322             | 48.629                                  | 36.599                                  | 10.656                |
| Rock NB<br>- River to Greg | HCV          | 21           | 33.13           | 36.474             | 40.016                                  | 31.752                                  | 11.446                |
| Rock NB<br>- River to Greg | ALL          | 1241         | 40.988          | 43.198             | 48.529                                  | 36.22                                   | 10.717                |
| Rock SB<br>- Greg to River | CAR          | 1128         | 43.526          | 44.117             | 48.38                                   | 38.649                                  | 5.538                 |
| Rock SB<br>- Greg to River | HCV          | 99           | 35.518          | 37.655             | 42.378                                  | 32.125                                  | 9.799                 |
| Rock SB<br>- Greg to River | ALL          | 1227         | 42.999          | 43.856             | 48.069                                  | 37.668                                  | 6.231                 |

## Rock Blvd Speed Survey

### Location 2 Data Tables

| FEATURE NAME                 | VEHICLE TYPE | AVG. QUEUE LENGTH (FT) | MEDIAN QUEUE LENGTH (FT) | 85 <sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) | 15 <sup>TH</sup> PERCENTILE QUEUE LENGTH (FT) | STD. DEV. QUEUE LENGTH (FT) | TRAVEL TIME 50 |
|------------------------------|--------------|------------------------|--------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------|----------------|
| Rock NB<br>- River to Greg   | CAR          | 124.046                | 75.091                   | 227.464                                       | 16.526                                        | 142.525                     | 65.87512       |
| Rock NB<br>- River to Greg   | HCV          | undefined              | undefined                | undefined                                     | undefined                                     | undefined                   | 35.64706       |
| Rock NB<br>- River to Greg   | ALL          | 124.046                | 75.091                   | 227.464                                       | 16.526                                        | 142.525                     | 65.38196       |
| Rock SB<br>- Greg to River   | CAR          | undefined              | undefined                | undefined                                     | undefined                                     | undefined                   | 34.79769       |
| Rock SB<br>- Greg to River   | HCV          | undefined              | undefined                | undefined                                     | undefined                                     | undefined                   | 27.24138       |
| Rock Blvd SB - Greg to River | ALL          | undefined              | undefined                | undefined                                     | undefined                                     | undefined                   | 34.55257       |

## APPENDIX E

### **Transit Stop Evaluations**





## Rock Boulevard Corridor Study Transit Stop Analysis



*Prepared by:*

**Parametrix**

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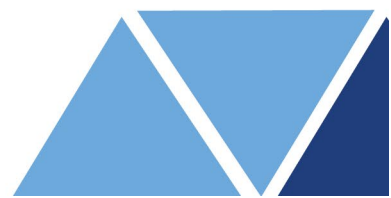






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## 1. Introduction

The project team conducted a review of the existing bus stops along the Rock Boulevard corridor, which are served by several RTC RIDE bus routes. The following sections provide a summary of existing conditions for each of the bus stops as well as planning-level recommendations for potential stop improvements. RTC generally considers providing benches at stops with five or more average daily boardings and bus shelters at stops with 20 or more average daily boardings.

RTC is developing the Move More with RTC initiative to improve public transit services. This plan is improving the convenience and ease of using the transit system through the following types of changes:

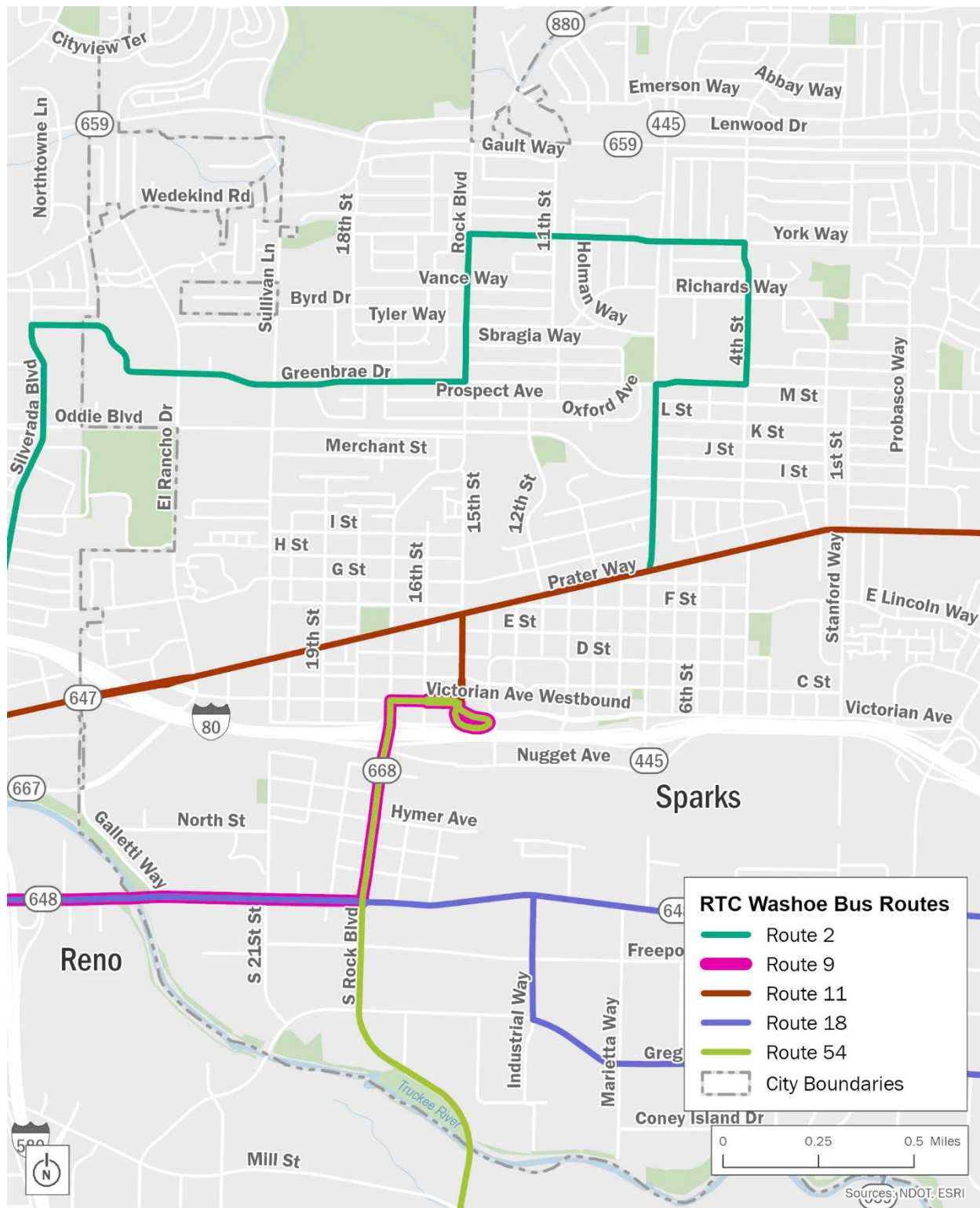
- Later and more frequent service on weekdays and weekends
- Changing routes to improve ridership
- Add onboard fare payment by credit/debit card

While no route changes are proposed on Rock Boulevard, Route 2 would be modified to extend service to the Sparks Senior Center of Richards Way. Route 54 would be extended to serve the Northern Nevada Sierra Medical Center in the southern portion of the route and modified east of the airport to better serve high ridership areas. Routes 2, 9, and 11 would offer 30-minute service frequencies for much of the day, with Route 54 offering 60-minute service frequency. The Lincoln Line provides 10-minute service headways on weekdays.

### 1.1. Corridor Overview

There are two bus routes that intersect the corridor (Routes 11 and 18) and three that run along some sections of the corridor (Routes 2, 9, and 54), as shown in **Figure 1**. Routes 11 and 18 cross the corridor at Prater Way and Glendale Avenue, respectively. Routes 9 and 54 run along the southern end of the corridor, beginning at Victorian Avenue. Route 9 runs west on Glendale Avenue, while Route 54 continues south past the southern boundary of the study area. In the northern part of the corridor, Route 2 operates between Greenbrae Drive and York Way. A total of 13 bus stops are located directly on Rock Boulevard and generally lack amenities such as benches or shelters.

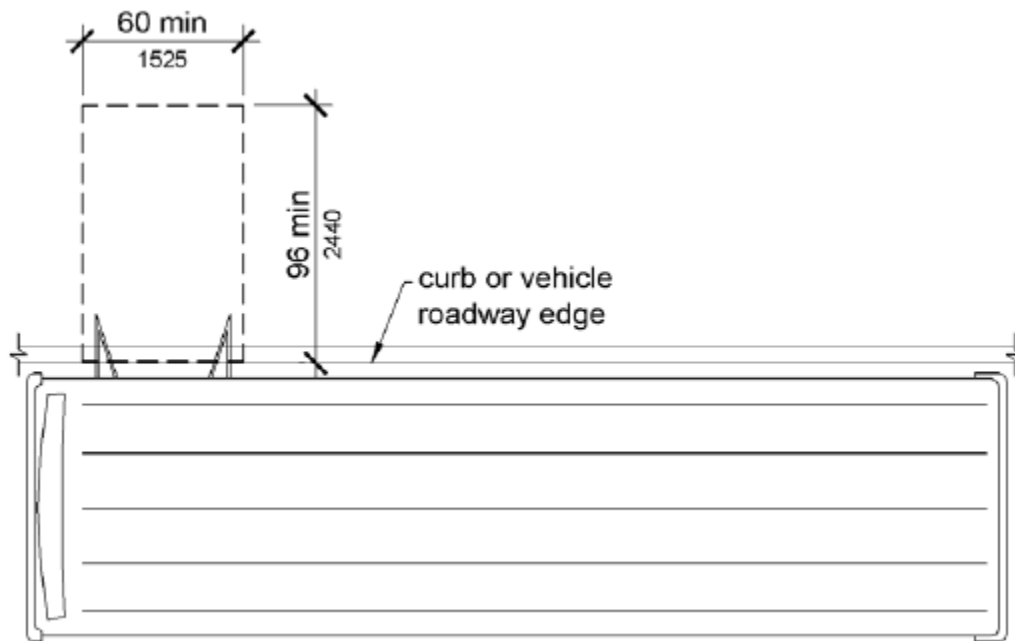
**Figure 1. Existing Transit Facilities and Services**



## 2. Individual Sites

The following section provides further details for each of the bus stops on Rock Boulevard. As bus stops are typically located in bi-directional pairs, information is provided for the northbound (NB) and southbound (SB) stops at each location. The review identified the presence or absence of such features as a paved boarding and alighting area, bus stop amenities (benches, shelters, etc.), crosswalks, and general connectivity to surrounding land uses. For context, Americans with Disabilities Act (ADA)-compliant boarding and alighting areas must provide a firm, stable surface with minimum dimensions of 96 inches by 60 inches (8' x 5'), connected to accessible routes (see **Figure 2**). While this study identified the presence of landing areas, it did not include a detailed evaluation for ADA compliance. Proposed recommendations for future improvements are provided for consideration.

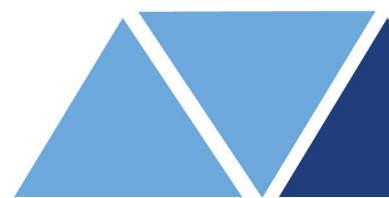
**Figure 2. ADA-Compliant Boarding and Alighting Area**



Source: <https://www.ada-compliance.com/ada-compliance/810-transportation-facilities>

In general, when prioritizing improvements for bus stops, the following criteria should be considered:

- Accessibility and ADA-compliance
- Rider safety (visibility, lighting, traffic exposure, roadway crossings)
- Ridership and utilization
- Connectivity to nearby destinations such as social services and employment







High-priority consideration should be given to individual bus stops which demonstrate a need for more than one of these criteria. Additionally, RTC may choose to weigh certain criteria more heavily than others in developing a prioritization framework for bus stop improvements.

2.1. Rock Park

These stops are located at the south end of the project study limits and primarily serve as access to Rock Park (**Figure 3**). Neither stop is accessible by sidewalk. In particular, the northbound stop is isolated from any connections to pedestrian infrastructure. No crosswalk is provided in the vicinity of the transit stops.

| Attributes/Description              | Northbound                                                                                                                                                                         | Southbound                                                                                                    |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Paved 8'x5' Boarding/Alighting Area | No                                                                                                                                                                                 | Yes                                                                                                           |
| Average Daily Boardings             | 1                                                                                                                                                                                  | 0                                                                                                             |
| Amenities                           | None                                                                                                                                                                               | Bench                                                                                                         |
| Connectivity                        | No sidewalk on east side of Rock Blvd.                                                                                                                                             | Accessible path to park, no sidewalk on west side of Rock Blvd.                                               |
| Recommendations                     | Install ADA-compliant pad, and other amenities as reasonable. Consider mid-block pedestrian crossing on Rock Blvd appropriate for the level of traffic, speed, and sight distance. | Provide sidewalk or multiuse path to existing sidewalk to the north which would eliminate gap to Greg Street. |

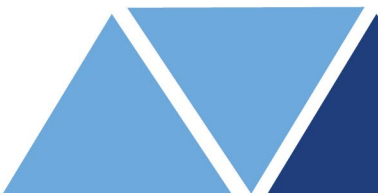


Figure 3. Rock Park Bus Stops (Route 54)

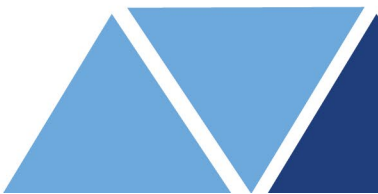




2.2. Greg Street

The northbound and southbound stops between Greg Street and Freeport Blvd are slightly offset (**Figure 4**). Immediately adjacent land uses include a mix of industrial, retail, and service oriented businesses (gas station, auto shop, etc.). There is limited right-of-way (ROW) available for ADA-compliant boarding/alighting areas at the northbound stop. The nearest crosswalks are located at the signalized intersections of Freeport Boulevard and Greg Street.

| Attributes/Description              | Northbound                                                            | Southbound                         |
|-------------------------------------|-----------------------------------------------------------------------|------------------------------------|
| Paved 8'x5' Boarding/Alighting Area | No                                                                    | Yes                                |
| Average Daily Boardings             | 3                                                                     | 3                                  |
| Amenities                           | Bench                                                                 | Bench                              |
| Connectivity                        | Existing sidewalk.                                                    | Existing sidewalk.                 |
| Recommendations                     | Install ADA-compliant pad – would require ROW in the landscaped area. | Consider installation of lighting. |





**Figure 4. Greg Street Bus Stops (Route 54)**



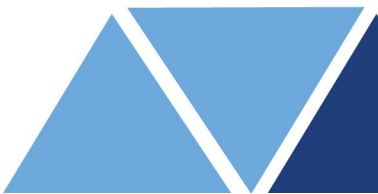




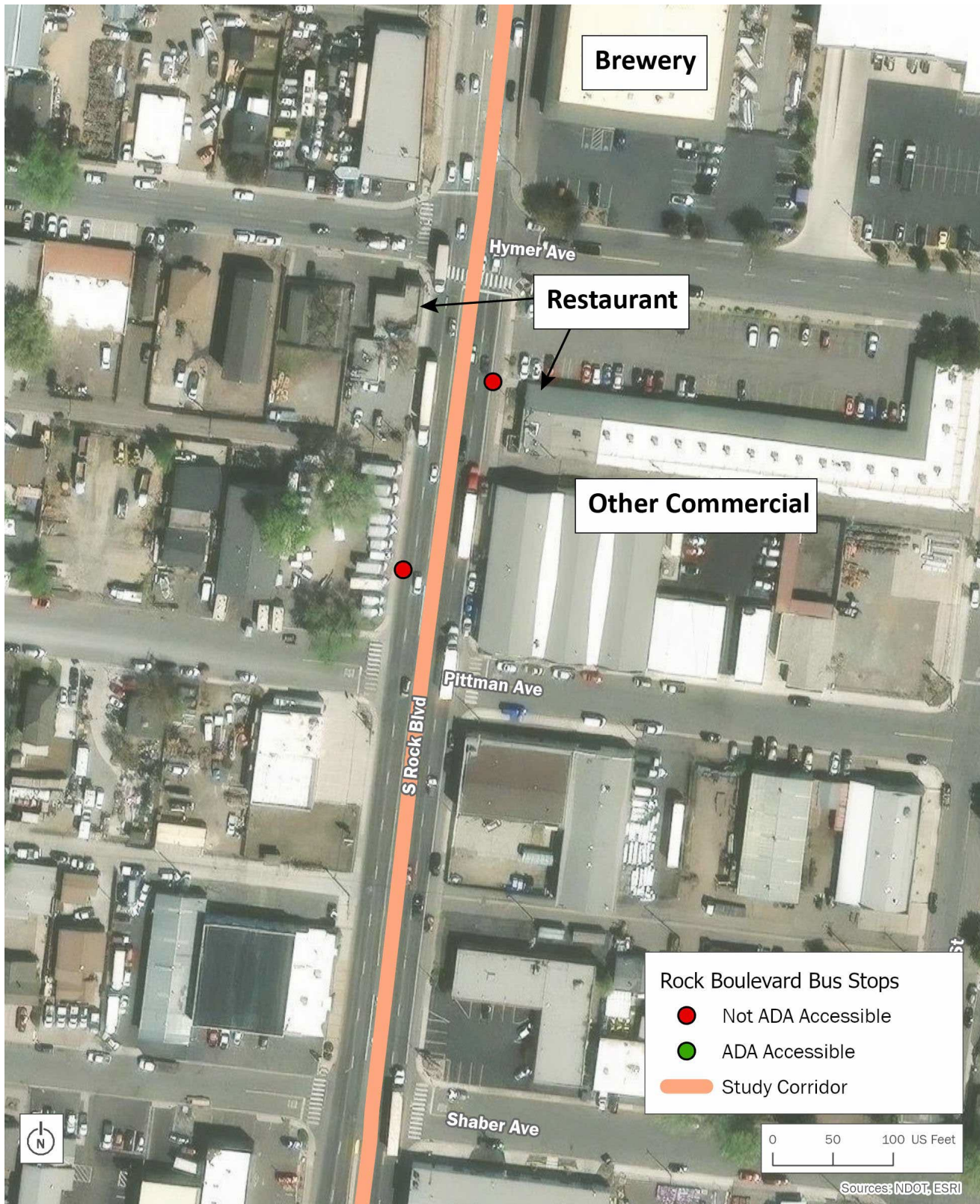
2.3. Pittman Avenue

The northbound and southbound stops between Pittman Avenue and Hymer are slightly offset (**Figure 5**). Immediately adjacent land uses include a mix of industrial and commercial. There is limited ROW available for ADA-compliant boarding/alighting areas at either stop. The closest crosswalk is provided at the Hymer Avenue signalized intersection.

| Attributes/Description              | Northbound                              | Southbound                                                                   |
|-------------------------------------|-----------------------------------------|------------------------------------------------------------------------------|
| Paved 8'x5' Boarding/Alighting Area | No.                                     | No                                                                           |
| Average Daily Boardings             | 8                                       | 1                                                                            |
| Amenities                           | None                                    | None                                                                         |
| Connectivity                        | Existing sidewalk.                      | Existing sidewalk is partially covered by dirt and gravel from adjacent lot. |
| Recommendations                     | Install an ADA-compliant pad and bench. | Install ADA-compliant pad.                                                   |



**Figure 5. Pittman Avenue Bus Stops (Routes 54 & 9)**

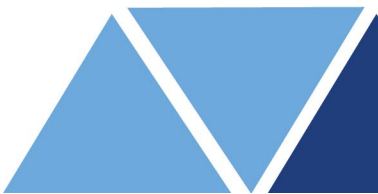




2.4. Greenbrae Drive

These stops are located in a residential area just north of Greenbrae Drive (**Figure 6**). There are potential safety concerns with sight issues in proximity to the Rock Boulevard crosswalk for buses stopping in the southbound direction. There is limited space available for ADA-compliant boarding/alighting areas at either stop. A crosswalk is located at Greenbrae Drive.

| Attributes/Description              | Northbound                                                                                                                     | Southbound                                                                                                                                                        |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paved 8'x5' Boarding/Alighting Area | No                                                                                                                             | No                                                                                                                                                                |
| Average Daily Boardings             | 4                                                                                                                              | 7                                                                                                                                                                 |
| Amenities                           | Bench                                                                                                                          | Bench                                                                                                                                                             |
| Connectivity                        | Existing sidewalk.                                                                                                             | Existing sidewalk.                                                                                                                                                |
| Recommendations                     | If possible, adjust bench/sign location to accommodate ADA-compliant pad in setback area of the fence next to utility cabinet. | Consider relocating stop onto Greenbrae as a "far side" stop to improve safety conditions at the intersection (i.e. pedestrians crossing eastbound on Rock Blvd). |





**Figure 6. Greenbrae Drive Bus Stops (Route 2)**



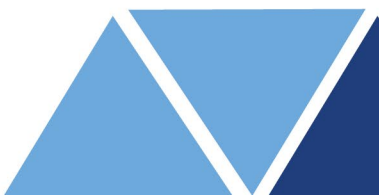




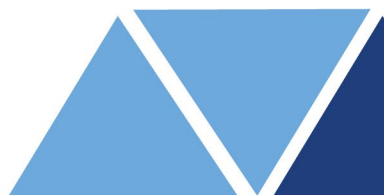
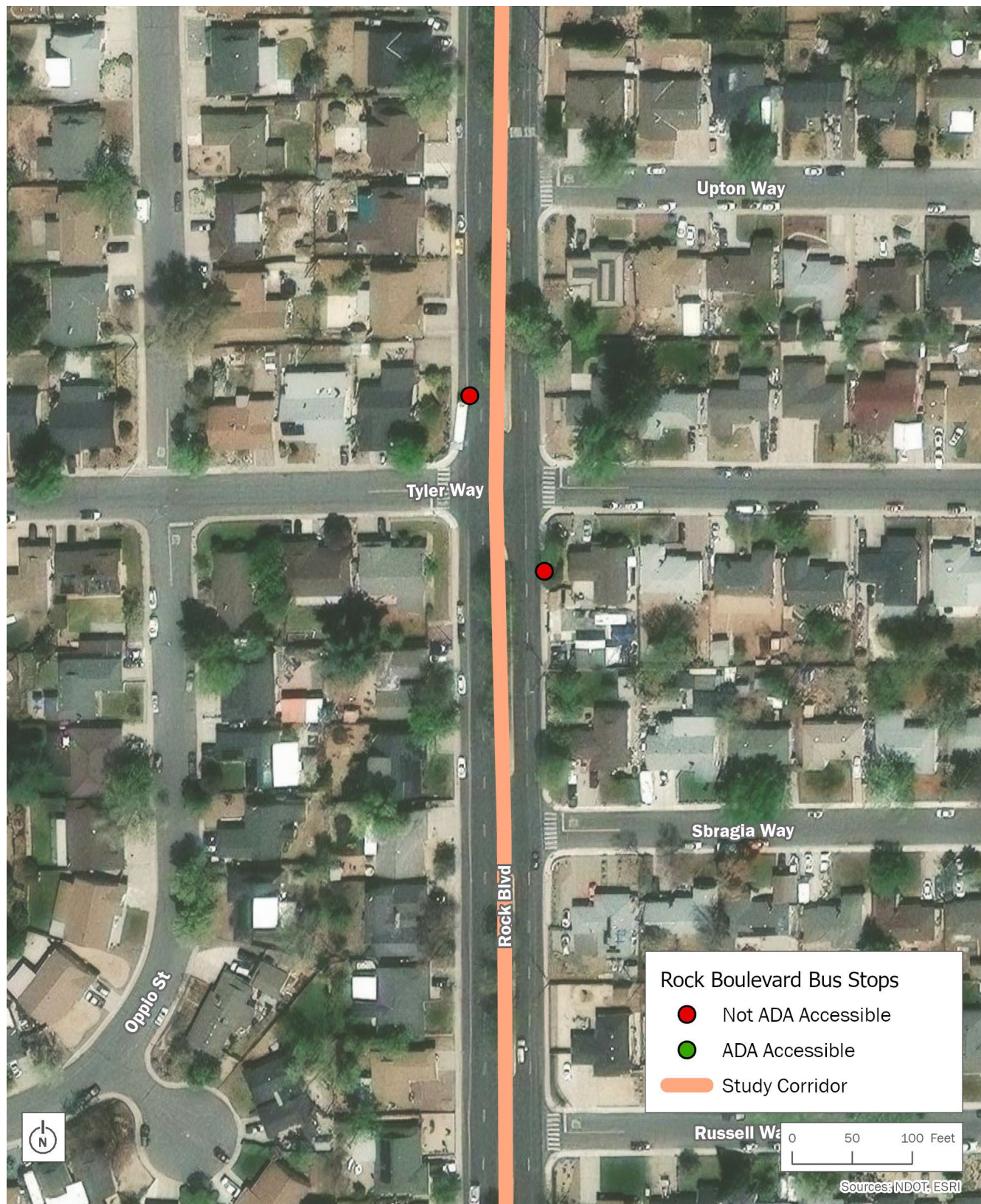
2.5. Tyler Way

These stops are located in a residential area on either side of the intersection with Tyler Way (**Figure 7**). There is limited ROW available for ADA-compliant boarding/alighting areas at either stop. No crosswalks are provided in the vicinity of the bus stops.

| Attributes/Description              | Northbound                         | Southbound                         |
|-------------------------------------|------------------------------------|------------------------------------|
| Paved 8'x5' Boarding/Alighting Area | No                                 | No                                 |
| Average Daily Boardings             | 1                                  | 3                                  |
| Amenities                           | Bench                              | None                               |
| Connectivity                        | Existing sidewalk.                 | Existing sidewalk.                 |
| Recommendations                     | Install ADA-compliant landing pad. | Install ADA-compliant landing pad. |



**Figure 7. Tyler Way Bus Stops (Route 2)**



## 2.6. Vance Way

These stops are located in a residential area on either side of the intersection with Vance Way (**Figure 8**). There is limited space available for ADA-compliant boarding/alighting areas at the northbound stop. A crosswalk is provided at Vance Way.

| Attributes/Description                  | Northbound                           | Southbound         |
|-----------------------------------------|--------------------------------------|--------------------|
| Paved 8'x5' Boarding/<br>Alighting Area | No                                   | Yes                |
| Average Daily Boardings                 | 16                                   | 24                 |
| Amenities                               | None                                 | Bench              |
| Connectivity                            | Existing sidewalk.                   | Existing Sidewalk. |
| Recommendations                         | Install ADA-compliant pad and bench. | Install shelter.   |

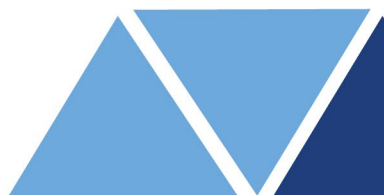
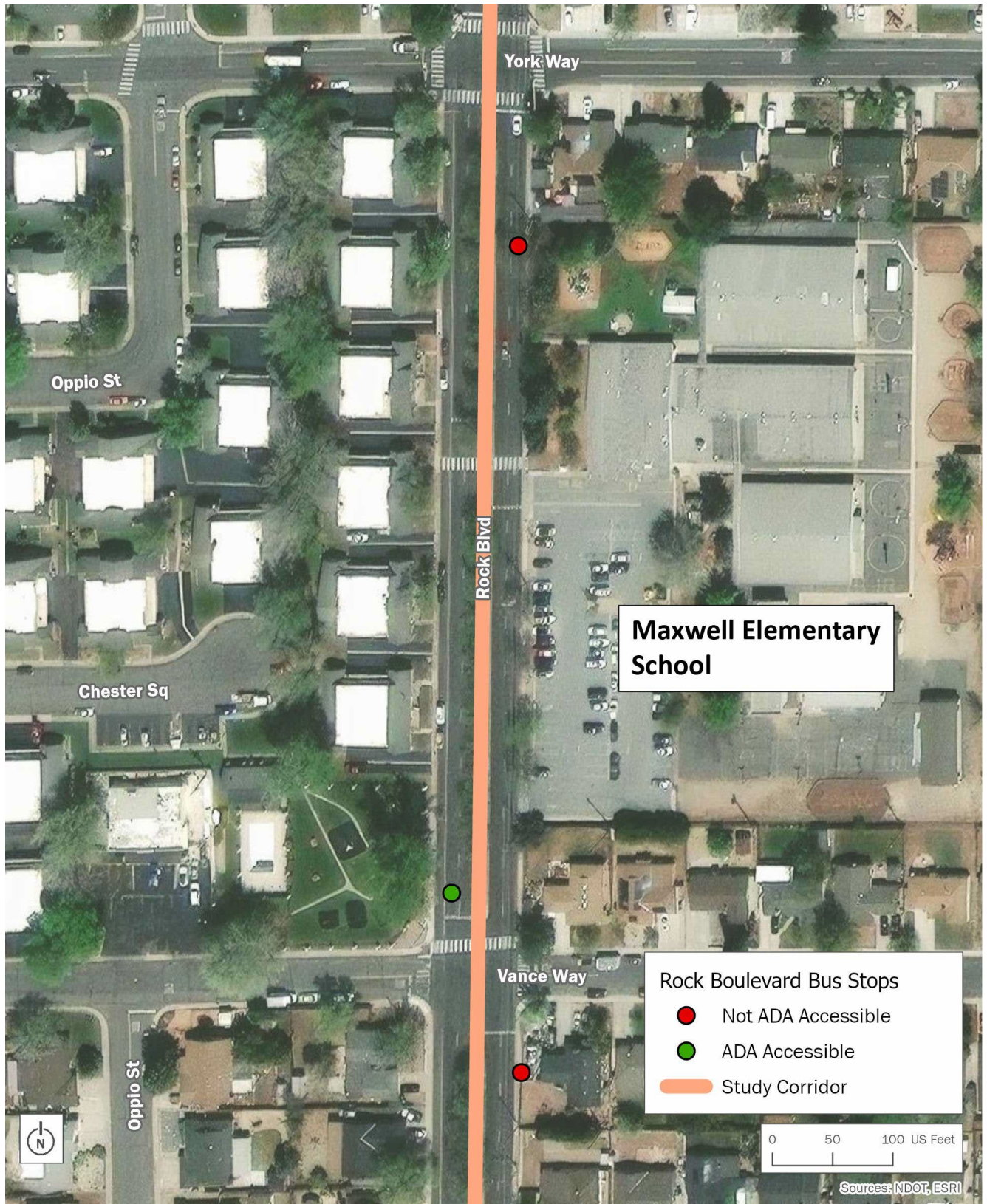
## 2.7 York Way

The northbound stop is located on Rock Boulevard, just south of York Way in front of Maxwell Elementary School (**Figure 8**). School officials have voiced concerns over the location of the stop as it is directly in front of the kindergarten playground area. A privacy fence was installed to discourage interaction between bus riders and students; however, there are remaining concerns. The stop for the westbound/southbound direction is located on York Way east of Rock Boulevard and has not been evaluated in the table below. A crosswalk is provided at York Way.

| Attributes/Description                  | Northbound                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paved 8'x5' Boarding/<br>Alighting Area | No                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Average Daily Boardings                 | 11                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Amenities                               | None                                                                                                                                                                                                                                                                                                                                                                                                               |
| Connectivity                            | Existing sidewalk.                                                                                                                                                                                                                                                                                                                                                                                                 |
| Recommendations                         | Consider relocation or consolidation of this stop. If relocated, ROW would be required to make the stop fully ADA-compliant. There is some uncertainty as to whether Maxwell Elementary School will continue to operate in the next few years. There may be an opportunity to work with the Washoe County School District/future landowner to construct a more robust and compliant stop at the existing location. |



**Figure 8. Vance Way and York Way Bus Stops (Route 2)**





## APPENDIX F

### **Traffic Operations Analysis**



## ANALYSIS METHODOLOGY

Level of service (LOS) is a term commonly used by transportation practitioners to measure and describe the operational characteristics of intersections, roadway segments, and other facilities. This term equates seconds of delay per vehicle at intersections to letter grades “A” through “F”, with “A” representing optimum conditions and “F” representing breakdown or over capacity flows.

### Intersections

The complete methodology for intersection level of service analysis is established in the *Highway Capacity Manual (HCM)*, 7<sup>th</sup> Edition published by the Transportation Research Board (TRB). **Table F-1** presents the delay thresholds for each level of service grade at signalized and unsignalized intersections.

**Table F-1: Level of Service Definition for Intersections**

| Level of Service | Brief Description                                              | Average Delay (seconds per vehicle) |                            |
|------------------|----------------------------------------------------------------|-------------------------------------|----------------------------|
|                  |                                                                | Signalized Intersections            | Unsignalized Intersections |
| A                | Free flow conditions.                                          | < 10                                | < 10                       |
| B                | Stable conditions with some affect from other vehicles.        | 10 to 20                            | 10 to 15                   |
| C                | Stable conditions with significant affect from other vehicles. | 20 to 35                            | 15 to 25                   |
| D                | High density traffic conditions still with stable flow.        | 35 to 55                            | 25 to 35                   |
| E                | At or near capacity flows.                                     | 55 to 80                            | 35 to 50                   |
| F                | Over capacity conditions.                                      | > 80                                | > 50                       |

Source: *Highway Capacity Manual*, 7<sup>th</sup> Edition

Level of service calculations for the study intersections were performed using the Synchro 12 software package with results reported in accordance with the current HCM 7<sup>th</sup> Edition methodology.

### Roadway Segments

Roadway segments were analyzed using the Generalized Daily Service Volumes for Urban Street Facilities (Exhibit 16-16) of the *Highway Capacity Manual*, 7<sup>th</sup> Edition. Using this methodology, planning level segment level of service is determined by comparing average daily traffic volumes to the LOS threshold values shown in **Table F-2**. The level of service/capacity is based on number of lanes and roadway speed rather than roadway classification.

The values listed under “Posted Speed = 30 mi/hr” are most appropriate for Rock Boulevard as the posted speed and access spacing assumptions (20 access points per mile) better represent the roadway within the study area than the “Posted Speed = 45 mi/hr” values. K and D factors were determined based on NDOT count data.

**Table F-2. Level of Service Thresholds for Roadway Segments**

| Facility Type                  | Maximum Service Flow Rate (Daily for Given Service Level) |       |        |        |        |
|--------------------------------|-----------------------------------------------------------|-------|--------|--------|--------|
| # of Lanes                     | LOS A                                                     | LOS B | LOS C  | LOS D  | LOS E  |
| <b>Posted Speed = 30 mi/hr</b> |                                                           |       |        |        |        |
| 2                              | N/A                                                       | N/A   | 1,700  | 11,800 | 17,800 |
| 4                              | N/A                                                       | N/A   | 2,200  | 24,700 | 35,800 |
| 6                              | N/A                                                       | N/A   | 2,600  | 38,700 | 54,000 |
| <b>Posted Speed = 45 mi/hr</b> |                                                           |       |        |        |        |
| 2                              | N/A                                                       | N/A   | 7,700  | 15,900 | 18,300 |
| 4                              | N/A                                                       | N/A   | 16,500 | 33,600 | 36,800 |
| 6                              | N/A                                                       | N/A   | 25,400 | 51,700 | 55,300 |

General assumptions: K-Factor – 0.9, D-Factor – 0.55, Peak Hour Factor – 0.92, Base Saturation Flow Rate – 1,900 pc/h/ln

### **Level of Service Policy**

The 2050 Regional Transportation Plan (RTP) establishes level of service criteria for regional roadway facilities in the City of Reno, City of Sparks, and Washoe County. The current level of service policy is:

- “All regional roadway facilities projected to carry less than 27,000 ADT at the latest RTP horizon – LOS D or better.”
- “All regional roadway facilities projected to carry 27,000 or more ADT at the latest RTP horizon – LOS E or better.”
- “All intersections shall be designed to provide a level of service consistent with maintaining the policy level of service of the intersecting corridors”.
- Rock Boulevard – Glendale Avenue to Victorian Avenue has a Regional Level of Service Standard of “F”

In general, Rock Boulevard carries or is projected to carry in the future horizon, less than 27,000 ADT except at the I-80 interchange. Therefore, LOS “D” was used as an operational threshold for the corridor outside the segment between Glendale Avenue and Victorian Avenue.

The level of service policies are not specific to minor side street approaches but rather focus on maintaining quality operations on the mainline corridor. LOS “E” or “F” on a side street approach does not necessarily constitute an exceedance of the level of service policy. However, minor street approach LOS will be considered when planning for future improvements.

## **EXISTING CONDITIONS**

### **Intersection Level of Service Analysis**

Peak period (6:30 AM to 8:30 AM and 3:30 PM to 5:30 PM) turning movement counts of vehicles, bicycles, and pedestrians were collected at the six study intersections between January 7<sup>th</sup> and January 9<sup>th</sup>, 2026, with Washoe County School District schools in regular session. This data was used to identify the highest morning and evening traffic conditions. The AM peak hour is generally from 7:15 AM to 8:15 AM and the PM peak hour is generally from 4:30 PM to 5:30 PM on the north side of I-80 and 3:30 PM to 4:30 PM on the south side of I-80. Full turning movement data is provided in **Attachment F-A**.

The collected turning movement counts were compared to historical NDOT data to determine if any adjustments were needed. The collected AM peak hour traffic volumes were approximately 10% lower than

the historical NDOT data, while the PM peak hour volumes were generally consistent with or higher than the historical NDOT data. Therefore, the AM peak hour turning movements were factored 10% higher.

Existing AM and PM peak hour intersection level of service analysis was performed for the study intersections based on the existing lane configurations and traffic volumes shown in **Exhibit F-1** and **Exhibit F-2**, respectively.

Signal timing for the study intersections were obtained from the RTC. Note that the AM timing plans at the Victorian Avenue and C Street intersections include a reservice parameter (phases can be served more than once per cycle). Therefore, the signal timing in Synchro at the Victorian Avenue and C Street intersections were slightly modified to allocate appropriate green time on all phases.



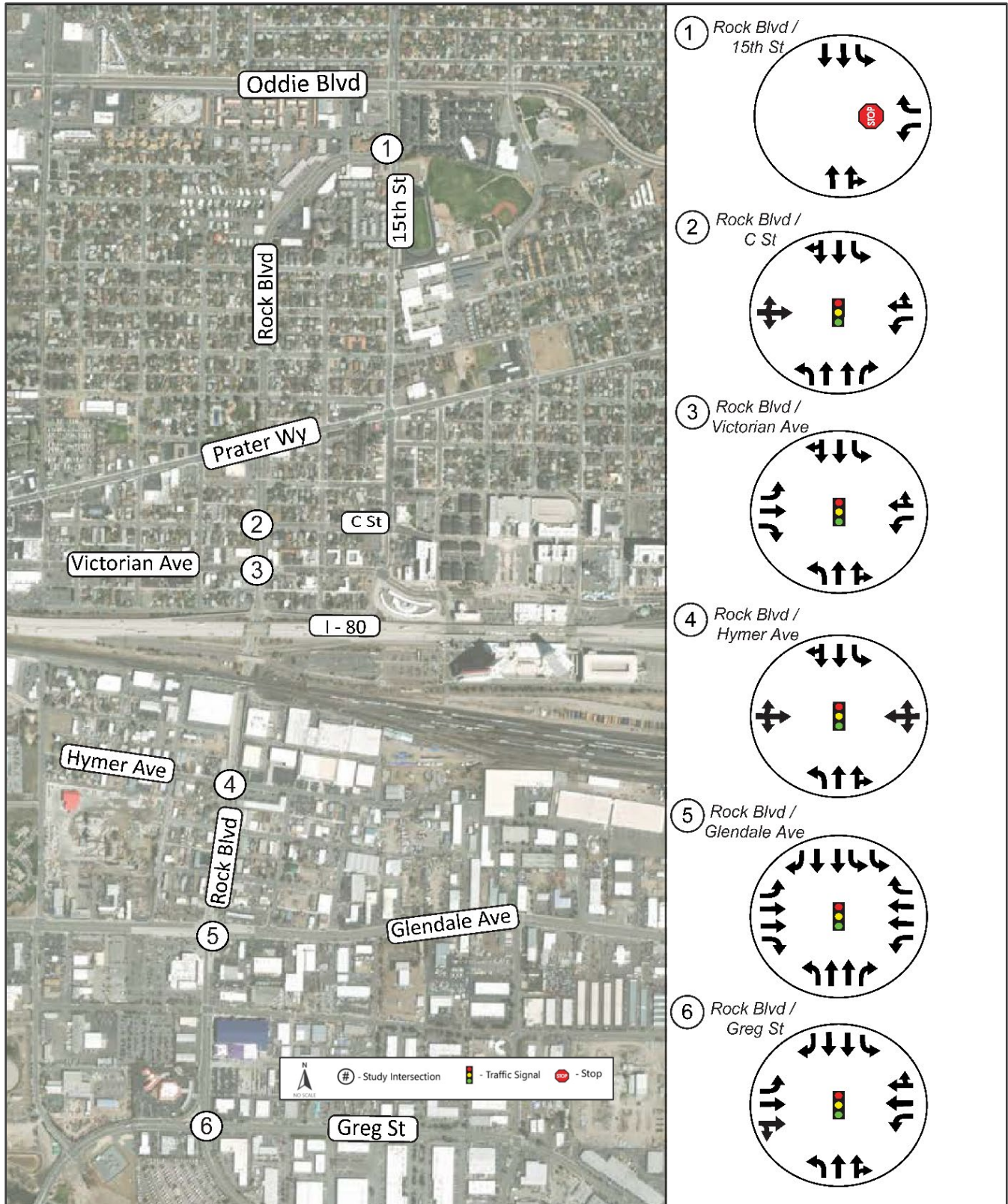


Exhibit F-1. Existing Intersection Lane Configurations and Controls



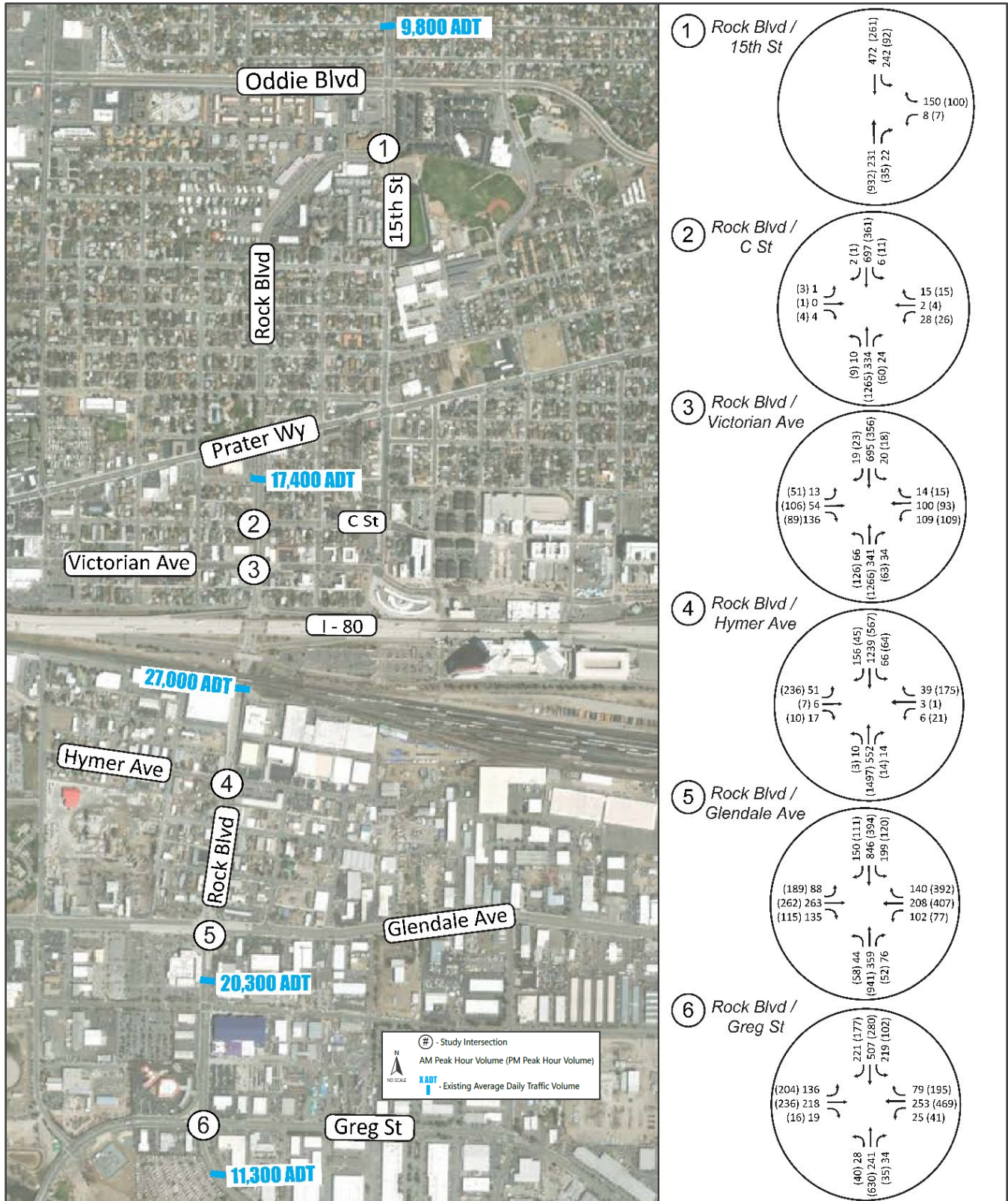


Exhibit F-2. Existing Traffic Volumes

**Table F-3** shows the Existing Condition level of service results and the technical calculations are provided in **Attachment F-B**.

**Table F-3: Existing Intersection Level of Service**

| ID | Intersection Name         | Intersection Control | AM Peak |                    | PM Peak |                    |
|----|---------------------------|----------------------|---------|--------------------|---------|--------------------|
|    |                           |                      | LOS     | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> |
| 1  | Rock Blvd / 15th St       | Side-Street Stop     |         |                    |         |                    |
|    | Southbound Left           |                      | A       | 8.7                | B       | 11.1               |
|    | Westbound Left            |                      | D       | 29.9               | D       | 33.9               |
|    | Westbound Right           |                      | B       | 10.2               | B       | 13.8               |
| 2  | Rock Blvd / C St          | Signal               |         |                    |         |                    |
|    | Overall                   |                      | B       | 16.2               | A       | 5.0                |
| 3  | Rock Blvd / Victorian Ave | Signal               |         |                    |         |                    |
|    | Overall                   |                      | B       | 19.7               | D       | 39.3               |
| 4  | Rock Blvd / Hymer Ave     | Signal               |         |                    |         |                    |
|    | Overall                   |                      | B       | 19.0               | D       | 46.9               |
| 5  | Rock Blvd / Glendale Ave  | Signal               |         |                    |         |                    |
|    | Overall                   |                      | D       | 47.0               | E       | 56.5               |
| 6  | Rock Blvd / Greg St       | Signal               |         |                    |         |                    |
|    | Overall                   |                      | C       | 32.6               | D       | 51.1               |

Notes: 1. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections and for the worst approach/movement for side street stop controlled intersections.

Source: GCW, 2026

The study intersections currently technically operate within overall level of service policy. Intersections may operate at acceptable levels of service overall but have movements that operate poorly, causing queuing and congestion on Rock Boulevard during peak hours. Notably in the northbound direction, south of I-80, during the PM Peak Hour. Additionally, the closely spaced traffic signals near the I-80 interchange create coordination challenges and limited vehicle storage between intersections.

The single northbound left-turn lane at the I-80 westbound on-ramp appears to be a primary constraint in the corridor. NDOT's preferred alternative at the interchange proposes dual northbound left-turn lanes at this location in the future.

#### **Roadway Segment Level of Service Analysis**

NDOT's Traffic Records Information Access (TRINA) has six count stations within the study corridor. Existing daily roadway segment volumes were derived from available traffic data obtained from TRINA.

**Table F-4** presents the level of service assessment for Rock Boulevard based on the Existing Condition Daily roadway segment volume.



**Table F-4: Existing Roadway Segment Level of Service**

| Study Roadway | Roadway Limits                                                 | # of Lanes | ADT    | LOS |
|---------------|----------------------------------------------------------------|------------|--------|-----|
| Rock Blvd     | McCarran Boulevard to Oddie Boulevard (Northern Neighborhood)  | 4          | 9,800  | D   |
|               | Oddie Boulevard to Victorian Avenue (Residential / Commercial) | 4          | 17,400 | D   |
|               | Victorian Avenue to Hymer Avenue (I-80 Interchange)            | 4          | 27,000 | E   |
|               | Hymer Avenue to Greg Street (Industrial)                       | 4          | 20,300 | D   |
|               | Greg Street to Truckee River (River)                           | 4          | 11,300 | D   |

Source: GCW, 2026

As shown in the table, the study roadway segments technically operate within overall level of service policy under Existing Conditions. Note that heavier traffic volumes and movements (peak hour basis) within the interchange area experience significant congestion.

## FUTURE CONDITIONS

### Forecasting

NDOT is planning improvements along I-80 including the Rock Boulevard interchange which will have significant changes to traffic volumes. NDOT's preferred alternative is shown on **Exhibit F-3**.

**Exhibit F-3. I-80 Preferred Alternative at Rock Boulevard**



The *Reno Spaghetti Bowl Project - Traffic Analysis Report* includes turning movement counts and projected 2040 volumes for the Preferred Alternative (Alternative 2) for the following intersections in the study corridor.

- Rock Boulevard / Victorian Avenue
- Rock Boulevard / I-80 WB Ramps
- Rock Boulevard / I-80 EB Ramps
- Rock Boulevard / Hymer Avenue

The projected 2040 traffic volumes at Victorian Avenue and Hymer Avenue were moderately increased from the NDOT study to develop 2050 horizon traffic volumes. Future (2050) traffic volume projections at the other study intersections were obtained using the current RTC Travel Demand Model as shown in **Attachment F-C**. Future turning movements volumes were then forecasted and balanced with the NDOT interchange for overall consistency. This was deemed conservative as the NDOT study forecasted higher traffic volumes than the current RTC model.

## Intersection Level of Service Analysis

Future AM and PM peak hour intersection level of service analysis was performed for the study intersections based on the future traffic volumes and future NDOT planned “baseline” lane configurations shown in **Exhibit F-4** and **Exhibit F-5**. **Table F-5** shows the Future Condition level of service results and the technical calculations are provided in **Attachment F-D**.

**Table F-5: Future Intersection Level of Service**

| ID | Intersection Name         | Intersection Control | AM Peak |                    | PM Peak |                    |
|----|---------------------------|----------------------|---------|--------------------|---------|--------------------|
|    |                           |                      | LOS     | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> |
| 1  | Rock Blvd / 15th St       | Side-Street Stop     |         |                    |         |                    |
|    | Southbound Left           |                      | A       | 8.8                | B       | 11.0               |
|    | Westbound Left            |                      | E       | 37.6               | E       | 43.2               |
|    | Westbound Right           |                      | B       | 10.4               | B       | 13.8               |
| 2  | Rock Blvd / C St          | Signal               |         |                    |         |                    |
|    | Overall                   |                      | B       | 19.2               | A       | 6.1                |
| 3  | Rock Blvd / Victorian Ave | Signal               |         |                    |         |                    |
|    | Overall                   |                      | C       | 21.1               | D       | 38.5               |
| 4  | Rock Blvd / Hymer Ave     | Signal               |         |                    |         |                    |
|    | Overall                   |                      | B       | 12.1               | D       | 51.4               |
| 5  | Rock Blvd / Glendale Ave  | Signal               |         |                    |         |                    |
|    | Overall                   |                      | D       | 52.2               | E       | 57.3               |
| 6  | Rock Blvd / Greg St       | Signal               |         |                    |         |                    |
|    | Overall                   |                      | C       | 29.1               | D       | 54.8               |

Notes: 1. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections and for the worst approach/movement for side street stop controlled intersections.  
Source: GCW, 2026

The study intersections are anticipated to technically operate within overall level of service policy. However, congestion and queuing are still anticipated on heavier movements to/from the I-80 interchange during the peak hours.

**Roadway Segment Level of Service Analysis**

**Table F-6** presents the level of service assessment for Rock Boulevard based on the future condition daily roadway segment volumes.

**Table F-6: Future Roadway Segment Level of Service**

| Study Roadway | Roadway Limits                                                 | # of Lanes | ADT    | LOS |
|---------------|----------------------------------------------------------------|------------|--------|-----|
| Rock Blvd     | McCarran Boulevard to Oddie Boulevard (Northern Neighborhood)  | 4          | 12,700 | D   |
|               | Oddie Boulevard to Victorian Avenue (Residential / Commercial) | 4          | 16,700 | D   |
|               | Victorian Avenue to Hymer Avenue (I-80 Interchange)            | 4          | 26,700 | E   |
|               | Hymer Avenue to Greg Street (Industrial)                       | 4          | 19,900 | D   |
|               | Greg Street to Truckee River (River)                           | 4          | 14,600 | D   |

Source: GCW, 2026

As shown in the table, the study roadway segments are anticipated to operate within policy level of service thresholds under Future Conditions.

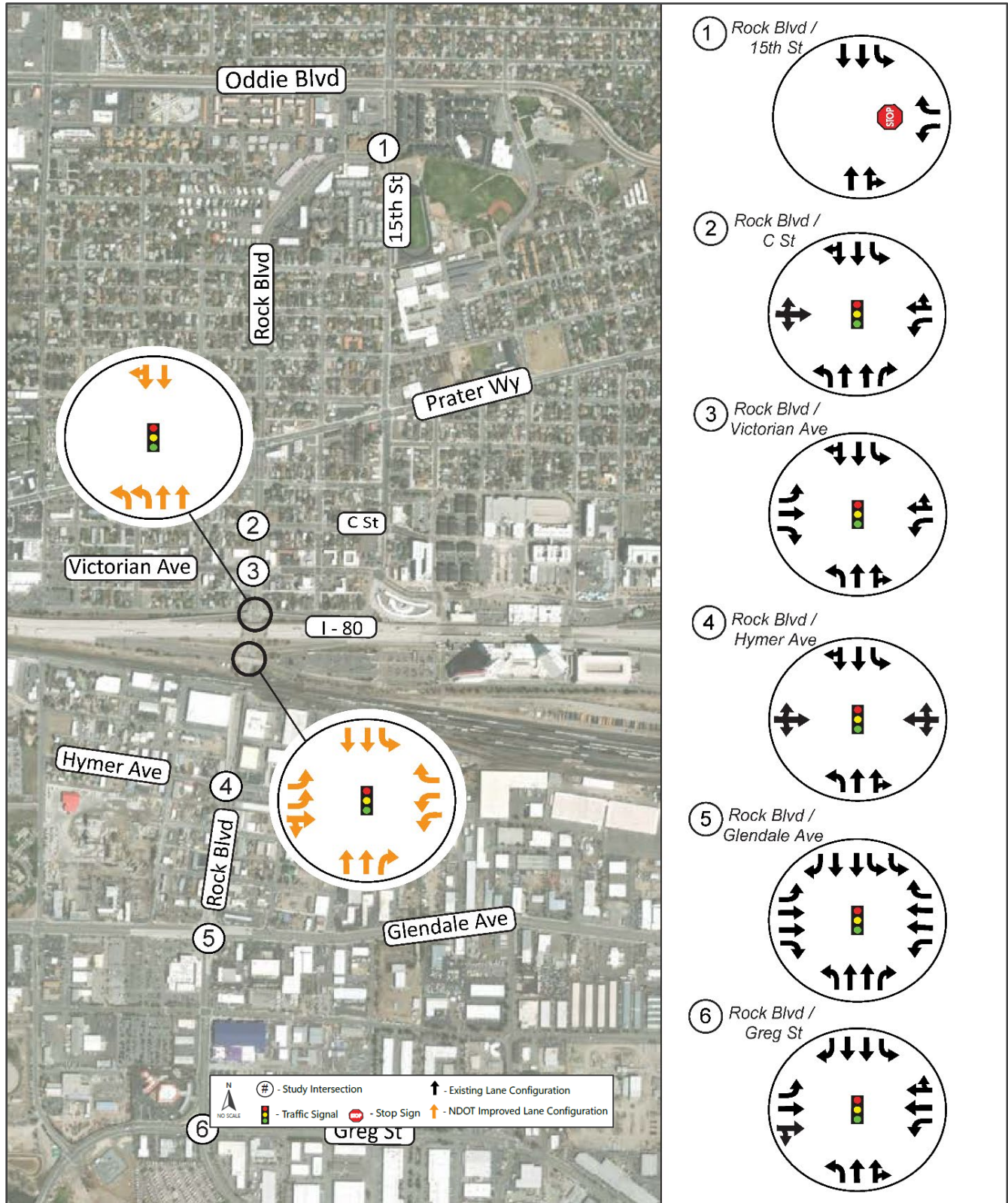


Exhibit F-4. Future Year Baseline Lane Configurations and Controls



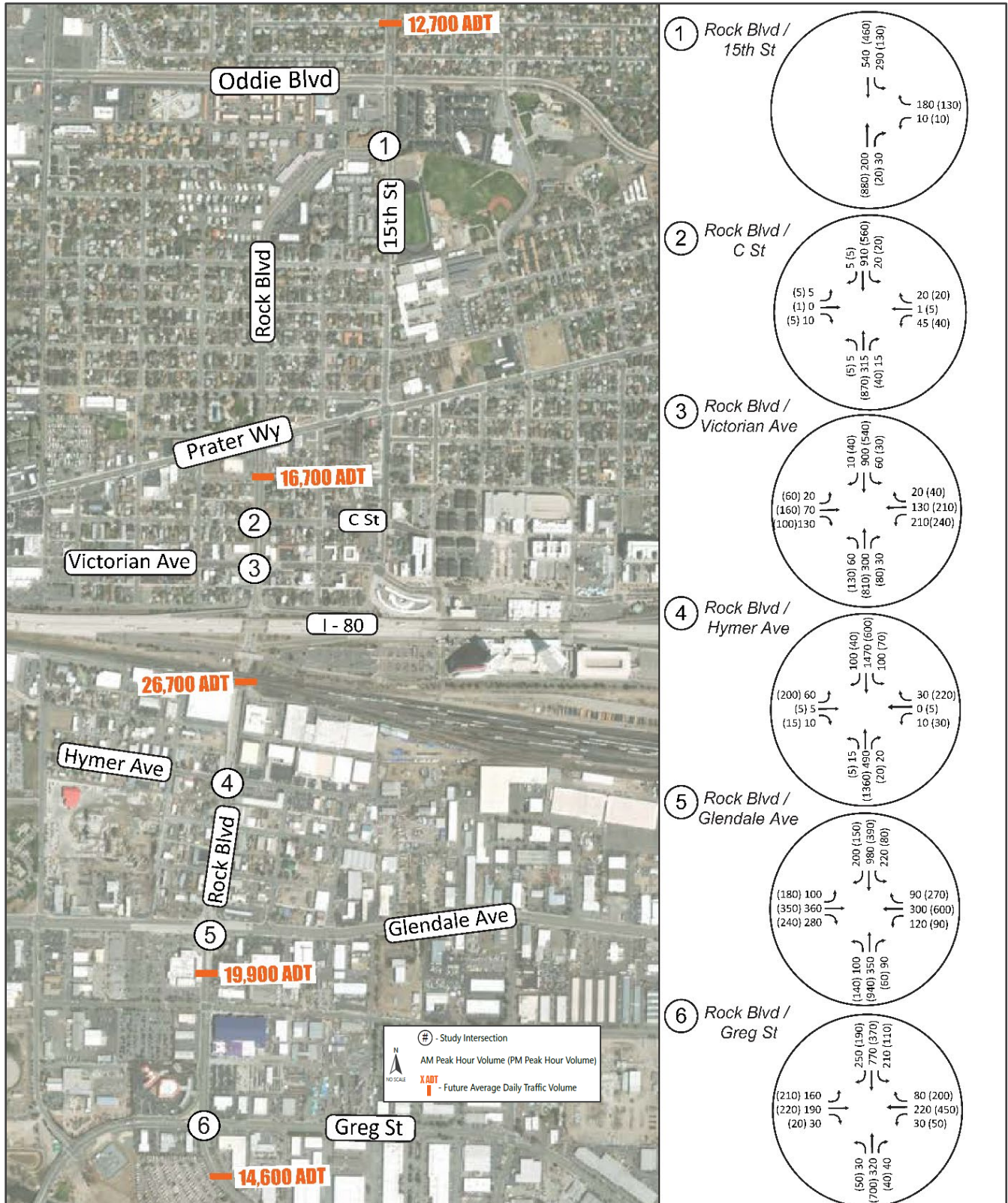


Exhibit F-5. Future Year (2050) Traffic Volumes



# APPENDIX G

## **Alternatives Analysis**



## CONTEXT FOR IMPROVEMENT OPTIONS DEVELOPMENT

### Guiding Documents

The Complete Street Plan within the *Ignite Sparks Comprehensive Plan* (**Exhibit G-2**) is the overarching planning document for the City of Sparks and Rock Boulevard corridor. The *Central Sparks Neighborhood Network Plan* (NNP) (**Exhibit G-1**) and *2050 Regional Transportation Plan, 2025 Update* (RTP) present goals, objectives, and general guidance for transportation improvements in the study area.

Since neither the NNP nor RTP established specific recommendations for the Rock Boulevard corridor, this corridor study will develop and evaluate improvement options and provide formal recommendations for later consideration and prioritization in the next RTP update.

Key figures of the planned multimodal network from the *Ignite Sparks Comprehensive Plan* and NNP are provided below for overall context. The *Ignite Sparks Comprehensive Plan* does not show Rock Boulevard as a “Complete Street”, which would prioritize pedestrian and bicycle facilities on that roadway. Therefore, it is inferred that vehicle travel and capacity are of high priority on this arterial roadway.

### Central Sparks NNP Recommendation

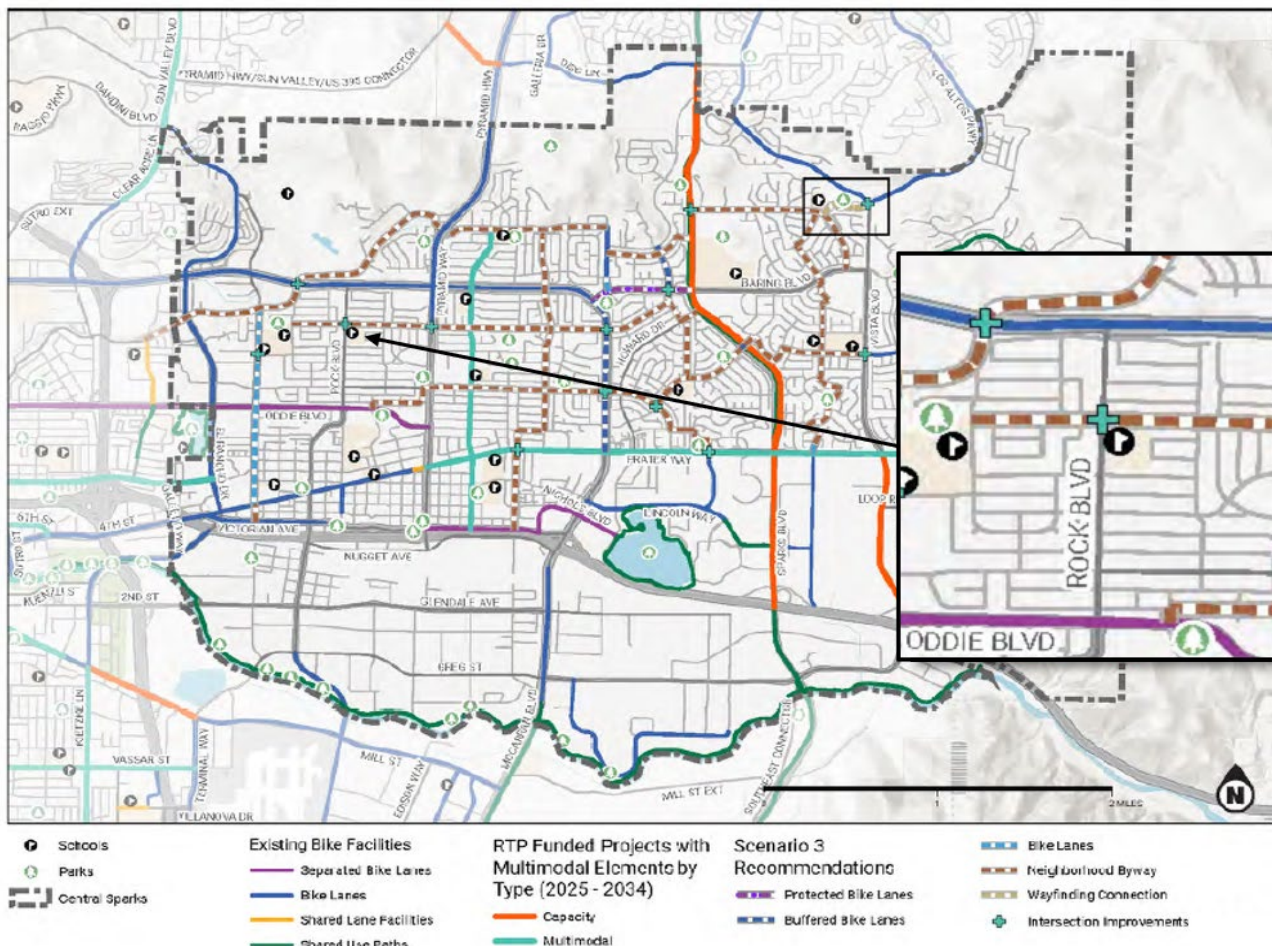


Exhibit G-1. Central Sparks Neighborhood Network Plan (NNP)

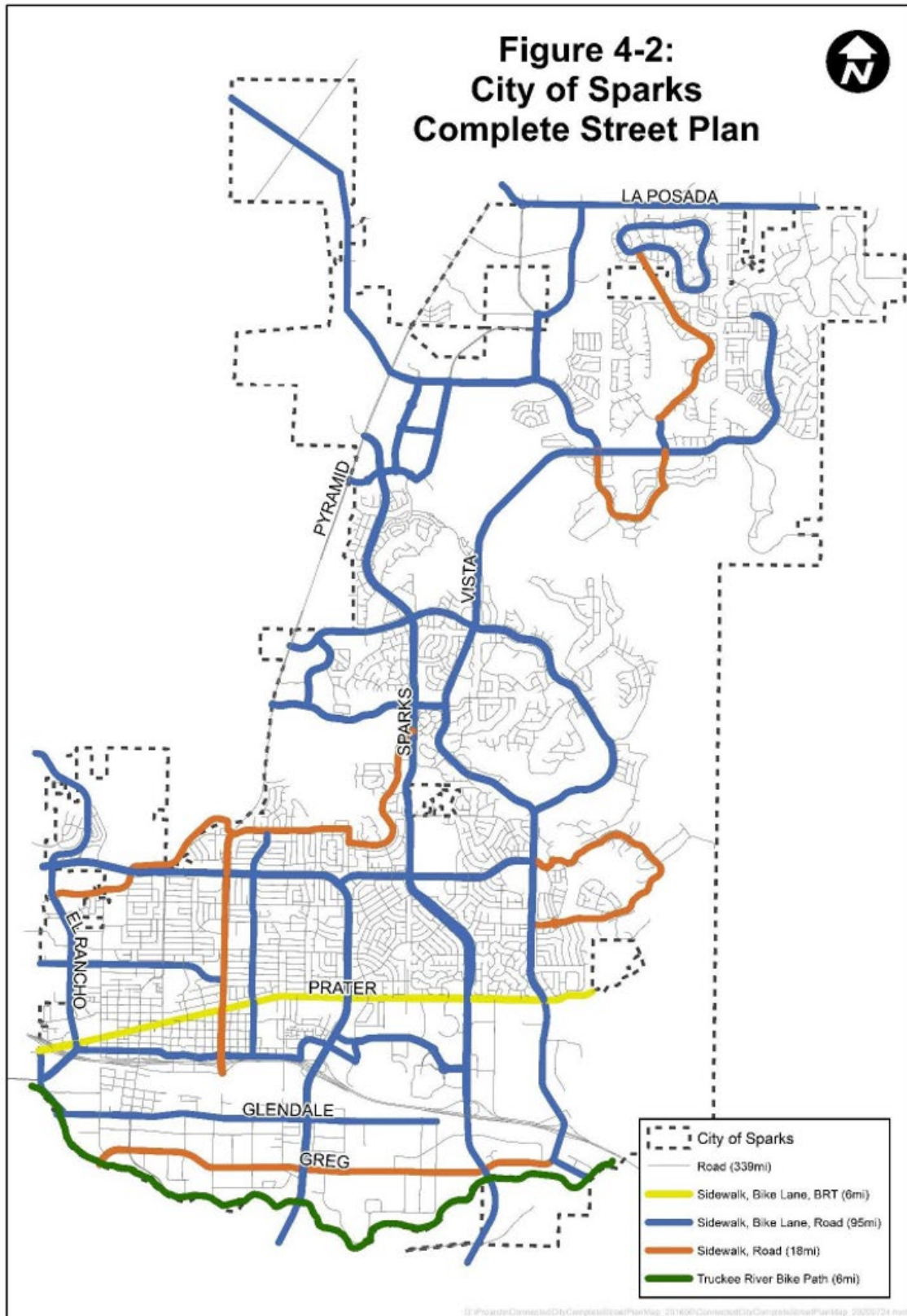


Exhibit G-2. Ignite Sparks Comprehensive Plan

### Priorities by Road Segment

Review of applicable planning documents and discussion with Technical Advisory Committee (TAC) members for this study indicate the following general priorities for the corridor:

#### Truckee River to Victorian Ave

##### Character:

- Predominantly an industrial arterial corridor with freight movement and commercial uses
- Higher presence of trucks and commercial vehicles
- High vehicular volumes and significant congestion near the I-80 interchange
- Limited pedestrian activity, but pedestrian facilities are important for workforce access

##### Priorities:

- Maintain freight mobility, turning movements, and curb radii
- Increase vehicle capacity and reduce existing queuing
- Connect the Truckee River Path to Victorian Avenue to the extent feasible

#### Victorian Ave to N. McCarran Blvd

##### Character:

- Mixed use with commercial services between Victorian Ave and Oddie Blvd
- Residential, churches, and schools north of Oddie Blvd
- Mix of housing, retail, services, and community destinations
- Pedestrian, bicycle, and transit activity, particularly associated with Sparks High School

##### Priorities:

- Address vehicle speed management and pedestrian crossing safety needs near homes, schools, and businesses
- Improve sidewalks to ADA minimum policy widths and clearances (at least 48" clear)
- Pedestrian facilities deemed of higher importance than cycling facilities
- Maintain Level of Service for vehicle travel

The improvement options presented in this study are intentionally aimed at addressing the priorities outlined above.



## INTERSECTION OPERATIONS FOR ADVANCED ALTERNATIVES

Various intersection modification options were considered to increase vehicular capacity, improve traffic operations, and/or increase safety in the corridor. This section provides traffic operations at key intersections where improvements were considered and advanced through this study. Intersection level of service calculations are provided in **Attachment G-A**.

### Remove Southbound Right Turn Lane at Glendale Avenue

Removing the southbound right turn lane at the Rock Boulevard/Glendale Avenue intersection was considered to create space for multimodal facilities. A minor increase to the overall intersection delay is anticipated with this option. It is anticipated that the Rock Boulevard/Glendale Avenue intersection would still operate at LOS “E” with the southbound right turn lane removed, as shown in **Table G-1**, within policy level of service thresholds (LOS “F”). Queuing on the southbound approach is anticipated to increase by approximately 150 feet and 200 feet under Existing and Future Year Conditions, respectively. Note that the existing southbound right turn lane is short (100 feet) and operations may not be significantly different than what exists currently. It is recommended that the channelized right turn configuration be maintained. Practically, this modification is essentially a shortening of the right turn pocket.

**Table G-1. Rock/Glendale Intersection Level of Service w/ Southbound Right Turn Pocket Removed**

| ID | Intersection Name        | Intersection Control | Existing |                    |         |                    | Future (2050) |                    |         |                    |
|----|--------------------------|----------------------|----------|--------------------|---------|--------------------|---------------|--------------------|---------|--------------------|
|    |                          |                      | AM Peak  |                    | PM Peak |                    | AM Peak       |                    | PM Peak |                    |
|    |                          |                      | LOS      | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> | LOS           | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> |
| 5  | Rock Blvd / Glendale Ave | Signal               |          |                    |         |                    |               |                    |         |                    |
|    | Overall                  |                      | D        | 50.5               | E       | 56.7               | E             | 60.8               | E       | 57.8               |

Notes: 1. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections

Source: GCW, 2026

### Interim Improvements At I-80 Interchange

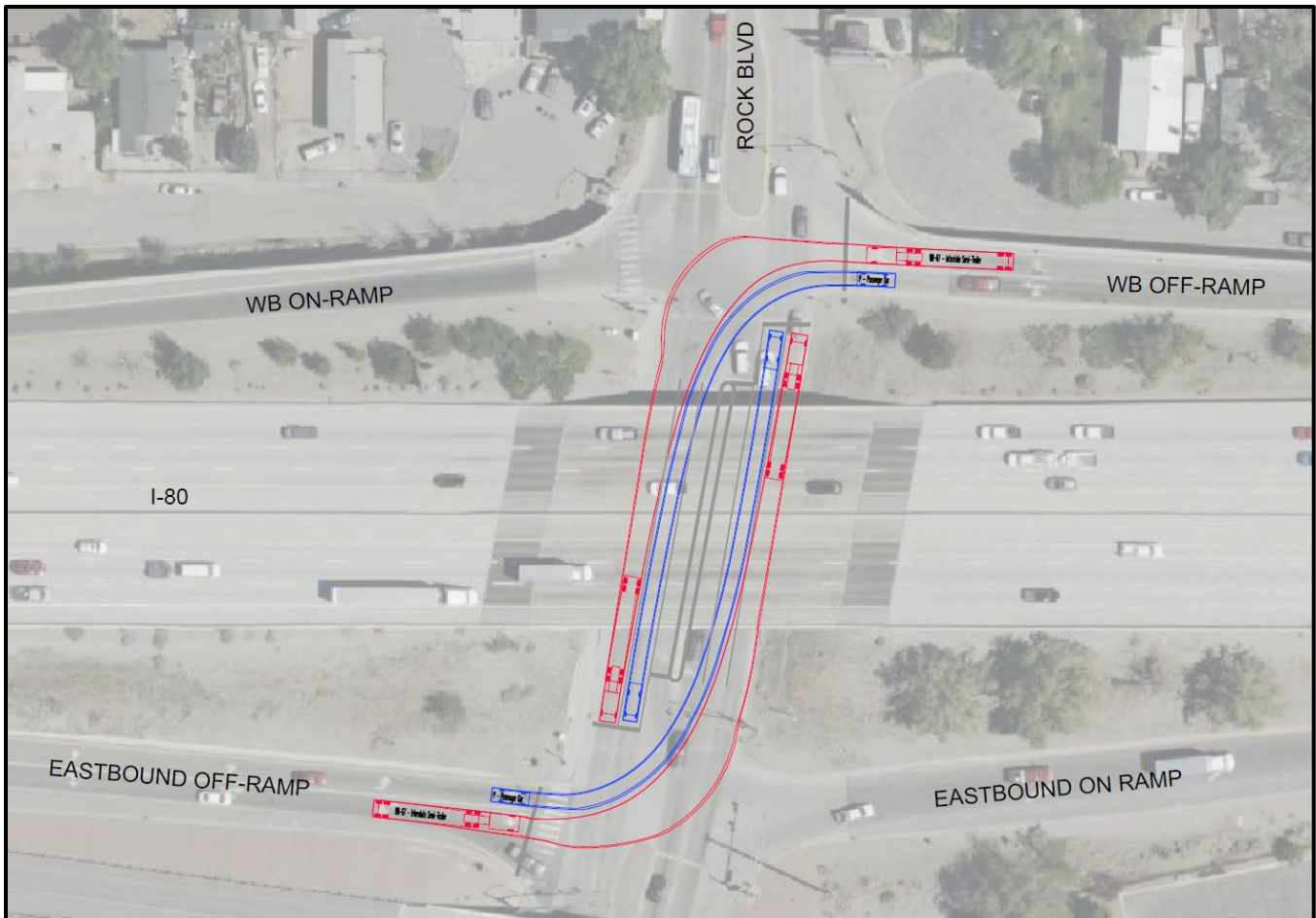
NDOT is planning long-term improvements along I-80 and revisions to the Rock Boulevard interchange which will cause notable changes to traffic volumes on Rock Boulevard. The schedule of the Rock Boulevard interchange improvements is not known at this time, but the major modifications are expected to be beyond 2035. Therefore, interim improvements were explored at the interchange to determine if near-term improvements could be implemented prior to the NDOT project and have a reasonable service life. Note that significant capacity improvements, like roadway widening, were deemed impractical due to right-of-way constraints within the interchange area (I-80 overcrossing and Union Pacific railroad bridge).

#### *Level 1: Restripe Eastbound & Westbound Off-Ramps for Dual Left Turns*

Restriping the I-80 off-ramp approaches to implement dual left-turn lanes was evaluated to potentially increase capacity on the off-ramps, reallocate green time to Rock Boulevard, and thereby increase throughput on Rock Boulevard. Vehicle turning templates were applied to assess the feasibility of accommodating design vehicles at the ramp terminal intersections, without geometric changes, and are shown in **Exhibit G-3**. As shown, dual left-turn movements are generally feasible from both off-ramp approaches with simple striping modifications.

Based on existing traffic volumes, implementation of dual left-turn lanes is recommended at the I-80 westbound off-ramp, where left-turn demand is highest during the AM peak hour. Dual left turns were also evaluated at the I-80 eastbound off-ramp; however, consideration should be given to the very high right-turn

volume on this approach (473 AM peak-hour right turns), which may limit operational benefits. Dual left turn striping is not advised on the eastbound off-ramp and dual right turns should be considered.



**Exhibit G-3: Restriping for Dual Left Turn Lanes**

## *Level 2: Remove Southbound Left Turn Movement*

Available traffic count data from NDOT indicates that the southbound left turn movement to the I-80 eastbound on-ramp is the lowest volume movement within the interchange with fewer than 100 peak hour left turns. This finding was confirmed through field observations, which recorded fewer than 50 southbound left turns during the peak 30-minute period. Given the low demand, consideration could be given to removing the southbound left turn movement in order to maximize green time for the northbound through movement, which carries the highest peak hour volumes.

## *Level 3: Dual Northbound Left Turn Lanes*

The Level 3 improvements consist of constructing dual northbound left turn lanes using the space created by removing the southbound left turn lane. Comparing levels 1, 2, and 3, this option provides the greatest operational benefit without widening Rock Boulevard. Level 3 would increase capacity for the northbound left turn movement to the I-80 westbound off-ramp, which currently experiences notable queuing and congestion

during the PM peak hour (558 peak hour left turns). It should be noted that this alternative would require significant construction to create two receiving lanes on the westbound on-ramp.

Intersection level of service results for Levels 1 through 3, based on existing traffic volumes, are summarized in **Table G-2**. Note that the calculations are for each level only, not for cumulative conditions of all levels.

**Table G-2. I-80 Interchange Improvements Intersection Level of Service (Existing Volumes)**

| Intersection Name                         | Intersection Control | AM Peak |                    | PM Peak |                    |
|-------------------------------------------|----------------------|---------|--------------------|---------|--------------------|
|                                           |                      | LOS     | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> |
| Existing Conditions                       |                      |         |                    |         |                    |
| Rock Blvd / I-80 WB Ramps                 | Signal               |         |                    |         |                    |
| Overall                                   |                      | C       | 22.8               | B       | 15.1               |
| Rock Blvd / I-80 EB Ramps                 | Signal               |         |                    |         |                    |
| Overall                                   |                      | B       | 18.1               | C       | 28.9               |
| Level 1 (Dual Westbound Left Turns)       |                      |         |                    |         |                    |
| Rock Blvd / I-80 WB Ramps                 | Signal               |         |                    |         |                    |
| Overall                                   |                      | B       | 13.2               | B       | 15.2               |
| Rock Blvd / I-80 EB Ramps                 | Signal               |         |                    |         |                    |
| Overall                                   |                      | B       | 18.1               | C       | 28.9               |
| Level 2 (No Southbound Left Turn)         |                      |         |                    |         |                    |
| Rock Blvd / I-80 WB Ramps                 | Signal               |         |                    |         |                    |
| Overall                                   |                      | C       | 22.7               | B       | 15.2               |
| Rock Blvd / I-80 EB Ramps                 | Signal               |         |                    |         |                    |
| Overall                                   |                      | B       | 18.4               | B       | 15.0               |
| Level 3 (Dual Northbound Left Turn Lanes) |                      |         |                    |         |                    |
| Rock Blvd / I-80 WB Ramps                 | Signal               |         |                    |         |                    |
| Overall                                   |                      | C       | 29.8               | C       | 23.4               |
| Rock Blvd / I-80 EB Ramps                 | Signal               |         |                    |         |                    |
| Overall                                   |                      | B       | 18.4               | B       | 15.0               |

Notes: 1. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections

Source: GCW, 2026

## DISMISSED ALTERNATIVES

### Intersection Spot Improvements

#### Rock / Hymer Signal Phasing Modification

Existing conditions at the Rock Boulevard/Hymer Boulevard intersection result in queuing on both the eastbound and westbound side street approaches. Alternative side street phasing options, including east-west protected/permissive left turn operations, were evaluated as shown in **Table G-3**. Although the analysis indicates minor operational improvements, substantial queuing would still be expected on the westbound left turn movement due to conflicts with high eastbound right turn volumes. As a result, revised east/west phasing is not recommended, as it would provide only marginal benefits while introducing additional conflict points.

**Table G-3. Rock/Hymer Intersection Level of Service with Protected/Permissive Lefts**

| ID | Intersection Name     | Intersection Control | Existing |                    |         |                    | Future (2050) |                    |         |                    |
|----|-----------------------|----------------------|----------|--------------------|---------|--------------------|---------------|--------------------|---------|--------------------|
|    |                       |                      | AM Peak  |                    | PM Peak |                    | AM Peak       |                    | PM Peak |                    |
|    |                       |                      | LOS      | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> | LOS           | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> |
| 4  | Rock Blvd / Hymer Ave | Signal               |          |                    |         |                    |               |                    |         |                    |
|    | Overall               |                      | B        | 10.7               | D       | 42.2               | B             | 11.2               | D       | 42.6               |

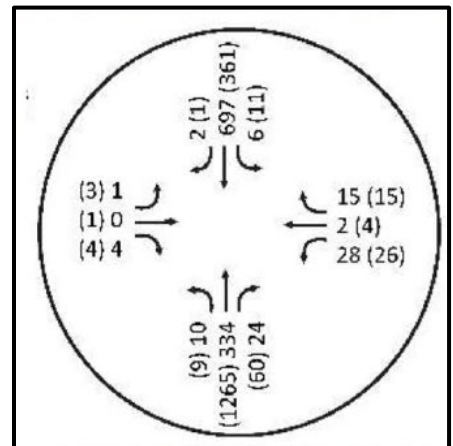
Notes: 1. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections

Source: GCW, 2026

It should be noted that the Rock / Hymer traffic signal system will be improved in 2027 under a separate project.

#### Remove C Street Traffic Signal

Traffic volumes on the side street approaches at C Street are very low and do not meet established traffic signal warrant criteria as shown in **Exhibit G-4**. Additionally, the close spacing of signalized intersections along the corridor contributes to progression and coordination challenges. The minor side-street movements can easily reroute to other intersections (Victorian Avenue and Prater Way) during busy time periods. While the westbound left turn movement from C Street is expected to experience increased delays during peak times, as shown in **Table G-4**, queuing is anticipated to be manageable. Removal of the traffic signal at Rock Boulevard/C Street was considered but the concept was not supported by the City of Sparks due to special event activity at Victorian Square.



**Exhibit G-4. C Street Peak Hour Traffic Volumes**



**Table G-4. Rock/C Street Intersection Level of Service**

| ID | Intersection Name  | Intersection Control | Existing |                    |         |                    | Future (2050) |                    |         |                    |
|----|--------------------|----------------------|----------|--------------------|---------|--------------------|---------------|--------------------|---------|--------------------|
|    |                    |                      | AM Peak  |                    | PM Peak |                    | AM Peak       |                    | PM Peak |                    |
|    |                    |                      | LOS      | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> | LOS           | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> |
| 2  | Rock Blvd / C St   | Side-Street STOP     |          |                    |         |                    |               |                    |         |                    |
|    | Northbound Left    |                      | A        | 9.3                | A       | 8.1                | B             | 10.3               | A       | 8.7                |
|    | Southbound Left    |                      | A        | 8.1                | B       | 12.3               | A             | 8.1                | A       | 9.9                |
|    | Eastbound Approach |                      | B        | 13.3               | C       | 22.2               | C             | 19.5               | C       | 21.8               |
|    | Westbound Left     |                      | C        | 19.1               | F       | 74.3               | C             | 24.5               | E       | 46.2               |

Notes: 1. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections  
Source: GCW, 2026

#### Roundabouts at Vance Way and York Way

The Maxwell Elementary School Principal expressed significant issues regarding speeding on Rock Boulevard. The consultant team has personally observed and experienced similar issues and aggressive driving within the school zone. Roundabouts were evaluated at the Vance Way and York Way intersections to serve as traffic calming measures adjacent to Maxwell Elementary School. The contemplated roundabouts would introduce geometric deflection forcing slower vehicle speeds, reduce conflict points (beneficial to safety), and change the character of the intersections for increased driver awareness.

The existing four-lane roadway would require dual lane roundabouts with an approximate inscribed circle diameter of 165 to 180 feet. Implementation would significantly impact all adjacent quadrants at both intersections, as illustrated in **Exhibit G-5**. This concept was dismissed due to impacts on adjacent properties.



**Exhibit G-5: Roundabout Concepts at Vance Way and York Way**

## Pedestrian Safety Spot Improvements

### Road Diet Feasibility

The Rock Boulevard right-of-way is constrained by many commercial and residential buildings in close proximity to the roadway. Adding bicycle specific facilities would therefore require either 1) acquiring significant amounts of private property or 2) reducing the number of vehicle travel lanes and repurposing the space for bicycle features.

The following analysis was performed to determine if and in what segments road diets could be plausible.

#### Truckee River to Victorian Avenue

A road diet is deemed not feasible south of Victorian Ave due to existing and future high traffic volumes (approaching 27,000 ADT as shown in **Table G-5**), current congestion, and severe queuing, in a segment of road where vehicle capacity and freight movement is a high priority.

**Table G-5: Future Roadway Segment Level of Service**

| Study Roadway | Roadway Limits                                                 | # of Lanes | ADT    | LOS |
|---------------|----------------------------------------------------------------|------------|--------|-----|
| Rock Blvd     | McCarran Boulevard to Oddie Boulevard (Northern Neighborhood)  | 4          | 12,700 | D   |
|               | Oddie Boulevard to Victorian Avenue (Residential / Commercial) | 4          | 16,700 | D   |
|               | Victorian Avenue to Hymer Avenue (I-80 Interchange)            | 4          | 26,700 | E   |
|               | Hymer Avenue to Greg Street (Industrial)                       | 4          | 19,900 | D   |
|               | Greg Street to Truckee River (River)                           | 4          | 14,600 | D   |

Source: GCW, 2026

#### Victorian Avenue to Oddie Boulevard

This segment carries 17,400 ADT today and is expected to carry similar daily volumes in the future. Two road diet scenarios were considered and are presented below for consideration.

#### *Option 1: Remove Northbound and Southbound Travel Lane*

This scenario considers removing one travel lane in each direction with the thought that buffered bike lanes could potentially be constructed in the former travel lanes. **Table G-6** and **Table G-7** show the resulting road diet level of service results and the technical calculations are provided in **Attachment G-B**.

**Table G-6. Option 1 Road Diet Roadway Segment Level of Service**

| Study Roadway | Roadway Limits                                       | # of Lanes | Existing |     | Future (2050) |     |
|---------------|------------------------------------------------------|------------|----------|-----|---------------|-----|
|               |                                                      |            | ADT      | LOS | ADT           | LOS |
| Rock Blvd     | Oddie Boulevard to Victorian Avenue (Mixed Use Area) | 2          | 17,400   | E   | 16,700        | E   |

Source: GCW, 2026

**Table G-7. Option 1 Road Diet Intersection Level of Service**

| ID | Intersection Name         | Intersection Control | Existing |                    |          |                    | Future (2050) |                    |         |                    |
|----|---------------------------|----------------------|----------|--------------------|----------|--------------------|---------------|--------------------|---------|--------------------|
|    |                           |                      | AM Peak  |                    | PM Peak  |                    | AM Peak       |                    | PM Peak |                    |
|    |                           |                      | LOS      | Delay <sup>1</sup> | LOS      | Delay <sup>1</sup> | LOS           | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> |
| 1  | Rock Blvd / 15th St       | Side-Street Stop     |          |                    |          |                    |               |                    |         |                    |
|    | Southbound Left           |                      | A        | 8.7                | B        | 11.0               | A             | 8.8                | B       | 11.0               |
|    | Westbound Left            |                      | E        | 37.5               | D        | 34.9               | F             | 50.2               | F       | 50.9               |
|    | Westbound Right           |                      | B        | 11.3               | C        | 22.8               | B             | 11.3               | C       | 23.2               |
| 2  | Rock Blvd / C St          | Signal               |          |                    |          |                    |               |                    |         |                    |
|    | Overall                   |                      | C        | 27.4               | A        | 7.7                | D             | 44.7               | A       | 7.7                |
| 3  | Rock Blvd / Victorian Ave | Signal               |          |                    |          |                    |               |                    |         |                    |
|    | Overall                   |                      | C        | 27.1               | <b>F</b> | <b>166.0</b>       | D             | 47.7               | D       | 50.0               |

Notes: 1. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections and for the worst approach/movement for side street stop controlled intersections.

Source: GCW, 2026

As shown in the tables, the Rock Boulevard/Victorian Avenue intersection and the roadway segment are anticipated to operate beyond level of service policy if a lane was removed in both directions. It is anticipated that queuing in the northbound direction at Victorian Avenue would extend into the I-80 ramps under Existing and Future Conditions. Operations at Prater Way (not studied) and potentially Oddie Boulevard (not studied) would also be problematic. Minor street approaches would be significantly impacted (increased delay). Therefore, a road diet consisting of removing a travel lane in both directions between Victorian Avenue and Oddie Boulevard is not recommended.

#### *Option 2: Remove Southbound Travel Lane*

This scenario considers removing one southbound travel lane in order to potentially use that space for a multi-use path. **Table G-8** and **Table G-9** show the road diet level of service results and the technical calculations are provided in **Attachment G-C**.

**Table G-8. Option 2 Remove Southbound Travel Lane Roadway Segment Level of Service**

| Study Roadway | Roadway Limits                                                    | # of Lanes | Existing |     | Future (2050) |     |
|---------------|-------------------------------------------------------------------|------------|----------|-----|---------------|-----|
|               |                                                                   |            | ADT      | LOS | ADT           | LOS |
| Rock Blvd     | Oddie Boulevard to Victorian Avenue<br>(Residential / Commercial) | 3          | 17,400   | D   | 16,700        | D   |

Source: GCW, 2026

**Table G-9. Option 2 Remove Southbound Travel Lane Intersection Level of Service**

| ID | Intersection Name         | Intersection Control | Existing |                    |         |                    | Future (2050) |                    |         |                    |
|----|---------------------------|----------------------|----------|--------------------|---------|--------------------|---------------|--------------------|---------|--------------------|
|    |                           |                      | AM Peak  |                    | PM Peak |                    | AM Peak       |                    | PM Peak |                    |
|    |                           |                      | LOS      | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> | LOS           | Delay <sup>1</sup> | LOS     | Delay <sup>1</sup> |
| 1  | Rock Blvd / 15th St       | Side-Street Stop     |          |                    |         |                    |               |                    |         |                    |
|    | Southbound Left           |                      | A        | 8.7                | B       | 11.0               | A             | 8.8                | B       | 11.0               |
|    | Westbound Left            |                      | E        | 40.6               | E       | 37.7               | F             | 55.3               | F       | 56.3               |
|    | Westbound Right           |                      | B        | 10.2               | B       | 13.7               | B             | 10.4               | B       | 13.8               |
| 2  | Rock Blvd / C St          | Signal               |          |                    |         |                    |               |                    |         |                    |
|    | Overall                   |                      | C        | 23.5               | A       | 5.1                | D             | 44.5               | A       | 6.5                |
| 3  | Rock Blvd / Victorian Ave | Signal               |          |                    |         |                    |               |                    |         |                    |
|    | Overall                   |                      | C        | 23.7               | D       | 40.2               | D             | 50.1               | D       | 41.5               |

Notes: 1. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections and for the worst approach/movement for side street stop controlled intersections.

Source: GCW, 2026

As shown in the tables, all studied intersections and study roadway segments are anticipated to operate within level of service policy under this option. Queuing would increase in the southbound direction, notably in the AM peak hour, throughout the corridor. At Victorian Avenue, queuing on the southbound approach is anticipated to extend to approximately 175 feet and 575 feet during the AM peak hour under Existing and Future Year Conditions, respectively. Note that queuing from the I-80 ramp intersections into Victorian Avenue, as happens today, would increase those stated queues. Based on the analysis, removing a southbound travel lane might be manageable under Existing Conditions; however, there would be little capacity remaining to carry future traffic volume growth should that occur. Minor street approaches would be significantly impacted (increased delay).

A road diet (Option 1 or 2) should only be seriously considered in the segment of Victorian Avenue to Oddie Boulevard if no other options are available to serve cyclists on roadways adjacent to Rock Boulevard north of Victorian Avenue.

#### Oddie Boulevard to N. McCarran Boulevard

#### *Option 3: Remove Northbound and Southbound Travel Lane*

This scenario considers removing one travel lane in each direction in the segment of Oddie Boulevard to N. McCarran Boulevard to repurpose the space of the former lanes. Traffic volumes are and will continue to be lower in this segment than the rest of the corridor and the residential character is more suited to a lower capacity roadway. **Table G-10** demonstrates that typical daily volumes in this segment are not anticipated to exceed 13,000 vehicles per day. This option may be possible but would have notable impacts on the minor street approaches to Rock Boulevard (movements from Greenbrae, Vance, York, and all other side-streets would be impacted). Further analysis should be undertaken before advancing this concept.

**Table G-10. Option 3 Road Diet Roadway Segment Level of Service**

| Study Roadway | Roadway Limits                                                   | # of Lanes | Existing |     | Future (2050) |          |
|---------------|------------------------------------------------------------------|------------|----------|-----|---------------|----------|
|               |                                                                  |            | ADT      | LOS | ADT           | LOS      |
| Rock Blvd     | McCarran Boulevard to Oddie Boulevard<br>(Northern Neighborhood) | 2          | 9,800    | D   | <b>12,700</b> | <b>E</b> |

Source: GCW, 2026



#### Option 4: Remove Southbound Travel Lane

This scenario considers removing one southbound travel lane in the segment of Oddie Boulevard to N. McCarran Boulevard to create additional space for bicycle / pedestrian facilities. **Table G-11** shows the road diet level of service results.

**Table G-11. Option 4 Remove Southbound Travel Lane Roadway Segment Level of Service**

| Study Roadway | Roadway Limits                                                   | # of Lanes | Existing |     | Future (2050) |     |
|---------------|------------------------------------------------------------------|------------|----------|-----|---------------|-----|
|               |                                                                  |            | ADT      | LOS | ADT           | LOS |
| Rock Blvd     | McCarran Boulevard to Oddie Boulevard<br>(Northern Neighborhood) | 3          | 9,800    | D   | 12,700        | D   |

Source: GCW, 2026

This option is likely possible from strictly a traffic volume perspective. However, notable impacts would occur at the minor street approaches to Rock Boulevard. Movements from Greenbrae, Vance, York, and all other side-streets would be impacted with increased delays and difficulty entering/crossing Rock Boulevard.

Following review of this analysis, the City of Sparks did not wish to pursue any lane reductions on Rock Boulevard.

#### ***Bicycle Network Improvements***

##### Network Planning

Good bicycle facilities planning begins with evaluating the overall study area bicycle facilities network by documenting existing facilities, considering regional connections, identifying bicycle trip generators or high activity areas (such as dense residential and commercial land use), and identifying the highest value linkages in the study area. Corridor studies should focus on accomplishing specific goals in context rather than simply applying a one-size-fits-all approach.

Specifically related to bicycle facilities, the primary goals for this study are:

- Connect the Truckee River Path to Victorian Ave (where quality east-west facilities exist)
- Improve bike/ped facilities in the I-80 interchange area (Hymer to Victorian) as this segment has only narrow sidewalk on one side and high levels of user stress

With regard to the bicycle network, the *Central Sparks Neighborhood Network Plan* (NNP) emphasizes, and has planned, buffered bike lanes and a road diet on Sullivan Lane. Sullivan Lane is ideal as a north-south connection since it connects to El Rancho Drive in the north and passes through higher intensity commercial land uses and higher density residential developments than Rock Boulevard. Initial conversations with the TAC indicated the City of Sparks would be hesitant to support road diets on both Sullivan Lane and Rock Boulevard. Widening Rock Boulevard for bike facilities would impact numerous properties and would likely be cost prohibitive, therefore consideration is given in this study to utilizing alternate parallel routes that could be better suited for bicycle travel.

This study considers:

- Multi-use paths with roadway widening
- Multi-use paths with road diet
- A multi-use bridge over the UPRR railroad and I-80
- Widening sidewalks
- Shared roadway (cyclists share the lane with vehicles on lower volume streets)
- Bike lanes with road diet
- Routing cyclists to alternate roadways with wayfinding signage

**Exhibit G-6** provides an overview of the Rock Boulevard corridor within the Central Sparks street system and illustrates the linkage options (distinct segments shown by various colors) considered in building a bicycle network.



**Exhibit G-6. Study Area Connection Options**

Rock Boulevard is the primary north–south connection between the Truckee River and Victorian Avenue, having the only north-south roadway Truckee River crossing. Key, and recently improved, east–west connections exist on Victorian Avenue, Prater Way, Oddie Boulevard, and McCarran Boulevard.

North of Victorian Avenue, Sullivan Lane is an ideal north-south route and a potential alternative to Rock Boulevard. Similarly, 15<sup>th</sup> Street is parallel to Rock Boulevard and could serve as an alternative to Rock Boulevard between Victorian Avenue and Oddie Boulevard.

### Options for Truckee River to Victorian Avenue

Either Option A-3 (multi-use bridge, concept shown below in **Exhibit G-7**) or A-4 (modification of the existing roadway to widen sidewalk at the underpass) could be implemented between Hymer Avenue and Victorian Avenue to improve pedestrian and bicycle travel in this currently uncomfortable portion of the corridor.

It should be noted that permitting and constructing a long, multi-span, multi-use bridge over the UPRR railroad and I-80 would be complex, expensive, a lengthy process, and could have a poor return on investment. Further, landing the bridge on the north end from a height well above the freeway could prove very challenging and require notable property acquisition. This alternative was dismissed by the TAC.



**Exhibit G-7. Multi-Use Bridge Concept**

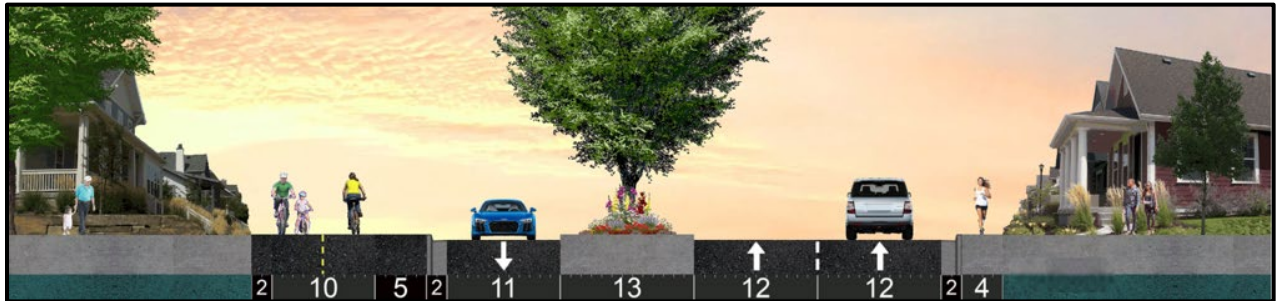
### Options for Victorian Avenue to N. McCarran Boulevard

Multimodal improvement alternatives were evaluated for the segment between Victorian Avenue and N. McCarran Boulevard. The evaluations present a range of roadway and sidewalk treatments including multi-use paths, bicycle lanes paired with road diets, sidewalk widening on one or both sides of the street, and designating a shared roadway on 15<sup>th</sup> Street between Prater Way and Rock Boulevard. An overarching consideration is that obtaining right-of-way is not deemed reasonable in this corridor due to the number of properties affected, magnitude of impacts, and high costs associated with that action.



### B-1: Multi-Use Path with Road Diet

This concept (**Exhibit G-8**) contemplated a shared-use path located in the space created by removing a southbound travel lane. By repurposing a travel lane, no substantial right-of-way acquisition would be needed.



**Exhibit G-8: B-1 Multi-Use Path with Road Diet**

### B-2: Buffered Bike Lanes with Road Diet

This concept (**Exhibit G-9**) contemplates removal of northbound and southbound travel lanes and repurposing those spaces as buffered bike lanes. By repurposing existing travel lanes, no substantial right-of-way acquisition would be needed.



**Exhibit G-9: B-2 Bike Lanes with Road Diet**

Options B-1 or B-2, which create bike facilities on Rock Boulevard, were ultimately dismissed by the TAC and not advanced as preferred alternatives.



## APPENDIX H

### Scoring Criteria Matrix



Rock Boulevard - Project Scoring Criteria

AGENDA ITEM 5.3 (A)

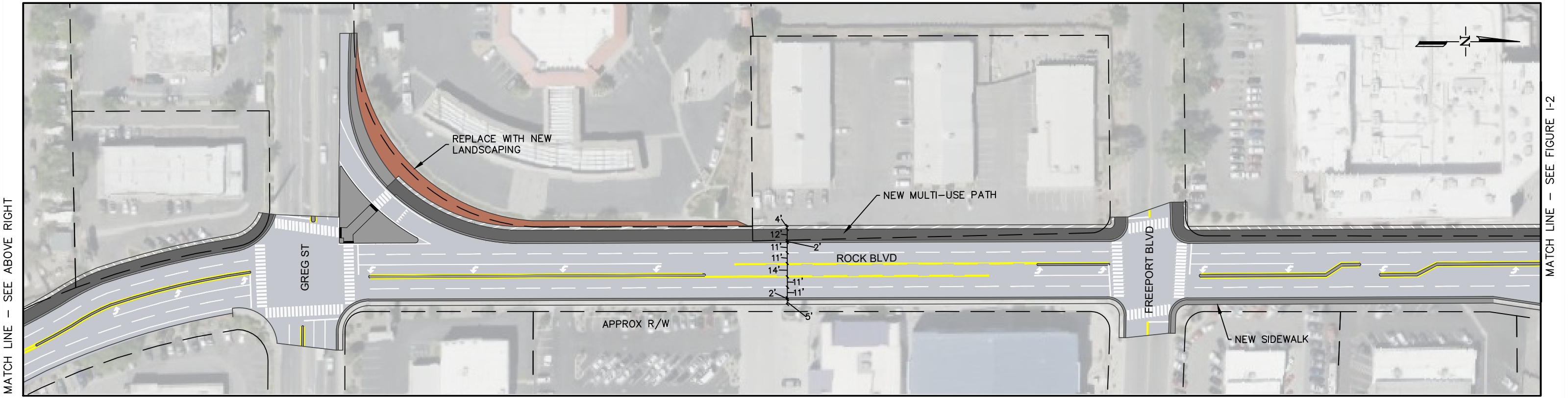
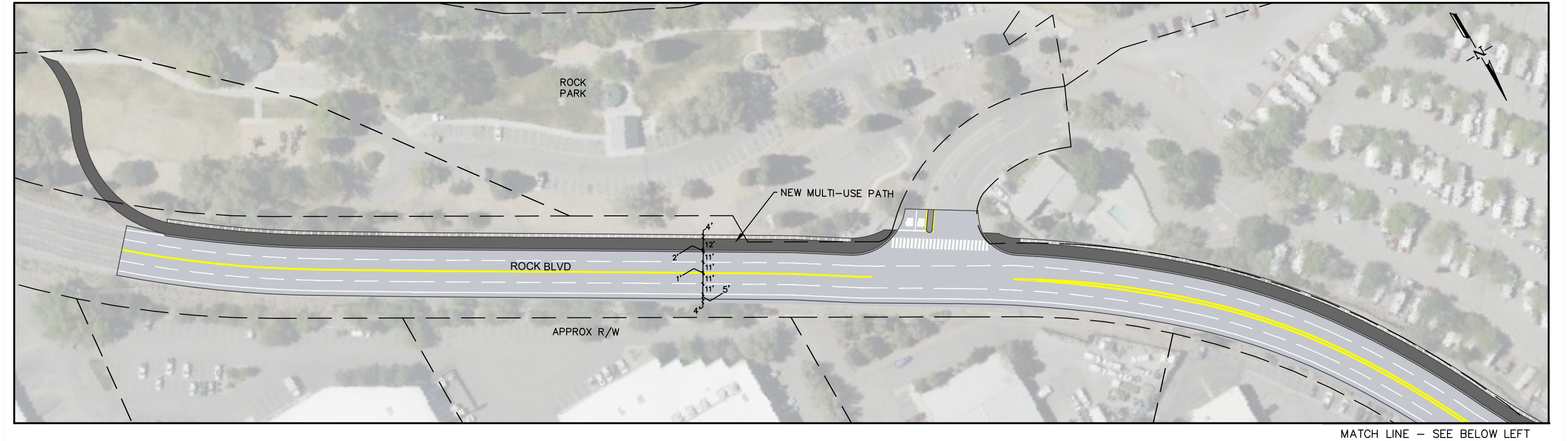
|             | Goal                                             | Objective                                                           | Metric                                                                                                                                    | Max Score | Truckee River to Victorian Avenue<br>(River/Industrial/I-80 Interchange) |                    |                              |                            |                         |                                 |                         |                                        | Victorian Avenue to Oddie Boulevard<br>(Residential/Commercial) |                                    |                    |                                |                                         |                                      | Oddie Boulevard to North McCarran Boulevard<br>(Northern Neighborhood) |                                    |                                             |                               |                               |                                            |                                                       |                                        |                      |
|-------------|--------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------|--------------------|------------------------------|----------------------------|-------------------------|---------------------------------|-------------------------|----------------------------------------|-----------------------------------------------------------------|------------------------------------|--------------------|--------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------------------------------------|------------------------------------|---------------------------------------------|-------------------------------|-------------------------------|--------------------------------------------|-------------------------------------------------------|----------------------------------------|----------------------|
|             |                                                  |                                                                     |                                                                                                                                           |           | Multi-Use Path A-1                                                       | Multi-Use Path A-2 | Multi-Use Bridge at I-80 A-3 | Multi-Use Path at I-80 A-4 | Slip Lane Modifications | I-80 Level 1 Restripe Off-Ramps | I-80 Level 2 Remove SBL | I-80 Level 3 Remove SBL & Add Dual NBL | Wayfinding Signage                                              | Multi-Use Path, Remove SB Lane B-1 | Shared Roadway B-5 | Remove C-Street Traffic Signal | Remove Right Turn Slip Lane at C Street | Crossing Treatments (F through I St) | Widen Sidewalk (15th to Oddie) B-3                                     | Multi-Use Path, Remove SB Lane B-1 | Bike Lanes, Remove NB & SB Travel Lanes B-2 | Widen Sidewalk Both Sides B-4 | Roundabouts at Vance and York | Speed Management (Tyler Wy to Plymouth Wy) | Crossing Treatments (Gault, Maxwell ES, Vance, Tyler) | Duat Northbound Right Turn at McCarran | Transit Improvements |
| 1           | Safety                                           | Reduce Traffic Fatalities and Serious Injuries                      | Number of crashes per year at project location (High=5, Medium=3, Low=1)                                                                  | 5         | 1                                                                        | 5                  | 5                            | 5                          | 5                       | 5                               | 5                       | 5                                      | 5                                                               | 3                                  | 1                  | 5                              | 5                                       | 3                                    | 3                                                                      | 3                                  | 3                                           | 3                             | 3                             | 5                                          | 3                                                     |                                        |                      |
|             |                                                  |                                                                     | Bike/ped crashes per year at project location (High=5, Medium=3, Low=1)                                                                   | 5         | 1                                                                        | 1                  | 5                            | 5                          | 3                       | 5                               | 5                       | 5                                      | 5                                                               | 5                                  | 1                  | 5                              | 5                                       | 5                                    | 5                                                                      | 3                                  | 3                                           | 3                             | 3                             | 3                                          | 1                                                     | 3                                      |                      |
| 2           | Congestion Reduction                             | Manage Vehicle Travel Demand and Reduce Congestion                  | Volume to Capacity ratio before project (>1.0=7, 1.0-0.75=5, <0.5=0)                                                                      | 7         | 0                                                                        | 5                  | 7                            | 7                          | 0                       | 7                               | 7                       | 7                                      | 5                                                               | 5                                  | 0                  | 5                              | 0                                       | 5                                    | 5                                                                      | 0                                  | 0                                           | 0                             | 0                             | 7                                          | 0                                                     |                                        |                      |
|             |                                                  |                                                                     | Average Daily Traffic (>14,000=5, 14,000-5,000=2, <5,000=0)                                                                               | 5         | 2                                                                        | 5                  | 5                            | 5                          | 0                       | 5                               | 5                       | 5                                      | 2                                                               | 5                                  | 0                  | 5                              | 0                                       | 5                                    | 5                                                                      | 2                                  | 2                                           | 2                             | 2                             | 2                                          | 2                                                     | 2                                      |                      |
| 3           | System Reliability and Resiliency                | Integrate All Travel Modes and Increase Travel Options              | Is the project a bike/ped project? (Yes=3, No=0)                                                                                          | 3         | 3                                                                        | 3                  | 3                            | 3                          | 3                       | 0                               | 0                       | 0                                      | 3                                                               | 3                                  | 3                  | 0                              | 3                                       | 3                                    | 3                                                                      | 3                                  | 3                                           | 0                             | 3                             | 0                                          | 0                                                     |                                        |                      |
|             |                                                  |                                                                     | Does the project fill gaps in the existing network? (Yes=4, No=0)                                                                         | 4         | 4                                                                        | 4                  | 4                            | 4                          | 4                       | 0                               | 0                       | 0                                      | 4                                                               | 4                                  | 4                  | 0                              | 0                                       | 0                                    | 0                                                                      | 4                                  | 4                                           | 0                             | 0                             | 0                                          | 4                                                     | 0                                      | 4                    |
| 4           | Efficient Freight Movement and Economic Vitality | Improve the Movement of Freight and Goods                           | Does the project improve operations in a freight corridor? (Yes=5, No=0)                                                                  | 5         | 0                                                                        | 0                  | 0                            | 0                          | 0                       | 5                               | 5                       | 5                                      | 0                                                               | 0                                  | 0                  | 0                              | 0                                       | 0                                    | 0                                                                      | 0                                  | 0                                           | 0                             | 0                             | 0                                          | 0                                                     |                                        |                      |
|             |                                                  |                                                                     | Provides access to employment center (Large=5, Medium=3, Small=1)                                                                         | 5         | 1                                                                        | 1                  | 3                            | 1                          | 1                       | 5                               | 5                       | 5                                      | 1                                                               | 1                                  | 1                  | 1                              | 1                                       | 1                                    | 1                                                                      | 1                                  | 1                                           | 1                             | 1                             | 1                                          | 5                                                     | 1                                      |                      |
| 5           | Land Use Compatibility                           | Infrastructure Supports Land Use                                    | Project is compatible with the Ignite Sparks 2030 Comprehensive Plan and Sparks Municipal Code? (Highly=8, Reasonably=4, No=0)            | 8         | 8                                                                        | 8                  | 0                            | 8                          | 8                       | 8                               | 4                       | 4                                      | 8                                                               | 0                                  | 8                  | 0                              | 8                                       | 8                                    | 8                                                                      | 0                                  | 0                                           | 8                             | 0                             | 8                                          | 8                                                     |                                        |                      |
|             |                                                  |                                                                     | Project is context sensitive to local land uses (Yes=3, No=0)                                                                             | 3         | 3                                                                        | 3                  | 3                            | 3                          | 0                       | 3                               | 3                       | 3                                      | 0                                                               | 0                                  | 3                  | 0                              | 0                                       | 3                                    | 3                                                                      | 3                                  | 3                                           | 3                             | 3                             | 3                                          | 3                                                     | 3                                      |                      |
|             |                                                  |                                                                     | Project enhances safety adjacent to school, park, activity center (Yes=3, No=0)                                                           | 3         | 3                                                                        | 3                  | 3                            | 3                          | 3                       | 0                               | 0                       | 0                                      | 0                                                               | 3                                  | 3                  | 0                              | 0                                       | 3                                    | 3                                                                      | 3                                  | 3                                           | 3                             | 3                             | 3                                          | 0                                                     | 3                                      |                      |
| 6           | Accessibility and Mobility                       | Provide a Regional Transit System and Other Transportation Services | Does the project location have a transit stop? (Yes=4, No=0)                                                                              | 4         | 4                                                                        | 4                  | 0                            | 0                          | 4                       | 0                               | 0                       | 0                                      | 4                                                               | 0                                  | 0                  | 0                              | 0                                       | 0                                    | 0                                                                      | 4                                  | 4                                           | 4                             | 4                             | 4                                          | 0                                                     | 4                                      |                      |
|             |                                                  |                                                                     | Distance from fixed route transit service (<0.25 mi=3, 0.25-0.5mi=2, >0.5mi=0) and/or distance from BRT service (</= 0.5 mi=3, >0.5 mi=0) | 3         | 3                                                                        | 3                  | 3                            | 3                          | 3                       | 3                               | 3                       | 3                                      | 3                                                               | 3                                  | 3                  | 3                              | 3                                       | 3                                    | 3                                                                      | 3                                  | 3                                           | 3                             | 3                             | 3                                          | 3                                                     | 3                                      |                      |
|             |                                                  |                                                                     | Does the project promote transit? (Yes=2, No=0)                                                                                           | 2         | 2                                                                        | 2                  | 0                            | 0                          | 0                       | 0                               | 0                       | 0                                      | 2                                                               | 0                                  | 2                  | 0                              | 0                                       | 0                                    | 0                                                                      | 2                                  | 2                                           | 2                             | 0                             | 2                                          | 2                                                     | 0                                      | 2                    |
| 7           | Integrate Land-Use and Economic Development      | Improve Inter-Regional Connectivity                                 | Project is within which of the five TMRPA tiers? (1=7, 2=6, 3=4, 4=2, 5=1)                                                                | 7         | 6                                                                        | 6                  | 6                            | 6                          | 6                       | 6                               | 6                       | 7                                      | 7                                                               | 7                                  | 7                  | 7                              | 7                                       | 7                                    | 6                                                                      | 6                                  | 6                                           | 6                             | 6                             | 6                                          | 6                                                     |                                        |                      |
|             |                                                  |                                                                     | Does project improve connectivity for tourism? (Yes=3, No=0)                                                                              | 3         | 3                                                                        | 3                  | 0                            | 0                          | 0                       | 3                               | 3                       | 3                                      | 0                                                               | 0                                  | 0                  | 0                              | 0                                       | 0                                    | 0                                                                      | 0                                  | 0                                           | 0                             | 0                             | 0                                          | 0                                                     | 0                                      |                      |
| 8           | Fiscal Management                                | Prioritize Cost Effectiveness                                       | Benefitt to Cost Ratio (High=9, Medium =4, Low=0)                                                                                         | 9         | 4                                                                        | 4                  | 0                            | 9                          | 9                       | 9                               | 4                       | 4                                      | 9                                                               | 4                                  | 9                  | 9                              | 4                                       | 9                                    | 9                                                                      | 4                                  | 4                                           | 4                             | 4                             | 9                                          | 9                                                     | 9                                      |                      |
|             |                                                  |                                                                     | Project can be combined with other projects for efficiency (Yes=2, No=0)                                                                  | 2         | 0                                                                        | 0                  | 0                            | 2                          | 2                       | 2                               | 0                       | 0                                      | 2                                                               | 0                                  | 2                  | 2                              | 2                                       | 2                                    | 2                                                                      | 0                                  | 0                                           | 2                             | 2                             | 2                                          | 0                                                     | 2                                      |                      |
| 9           | Ease of Implementation                           | Advance Projects that are Feasible                                  | Right-of-Way acquisition (Low=7, Moderate=3, High Impact=0)                                                                               | 7         | 3                                                                        | 3                  | 0                            | 7                          | 7                       | 7                               | 7                       | 7                                      | 7                                                               | 0                                  | 7                  | 3                              | 7                                       | 7                                    | 7                                                                      | 3                                  | 3                                           | 7                             | 0                             | 7                                          | 7                                                     | 3                                      |                      |
|             |                                                  |                                                                     | Project Feasibility (High=10, Medium=5, Low=0)                                                                                            | 10        | 5                                                                        | 5                  | 0                            | 10                         | 10                      | 10                              | 5                       | 5                                      | 10                                                              | 7                                  | 10                 | 0                              | 10                                      | 10                                   | 10                                                                     | 0                                  | 0                                           | 10                            | 0                             | 10                                         | 10                                                    | 10                                     | 10                   |
| Total Score |                                                  |                                                                     |                                                                                                                                           | 100       | 56                                                                       | 68                 | 47                           | 81                         | 68                      | 83                              | 67                      | 67                                     | 77                                                              | 50                                 | 64                 | 45                             | 55                                      | 74                                   | 74                                                                     | 44                                 | 44                                          | 64                            | 37                            | 66                                         | 73                                                    | 66                                     | 66                   |

Notes:  
## - Potential Alternative (score greater than 50)  
## - Dismissed Alternative (score of 50 and below)

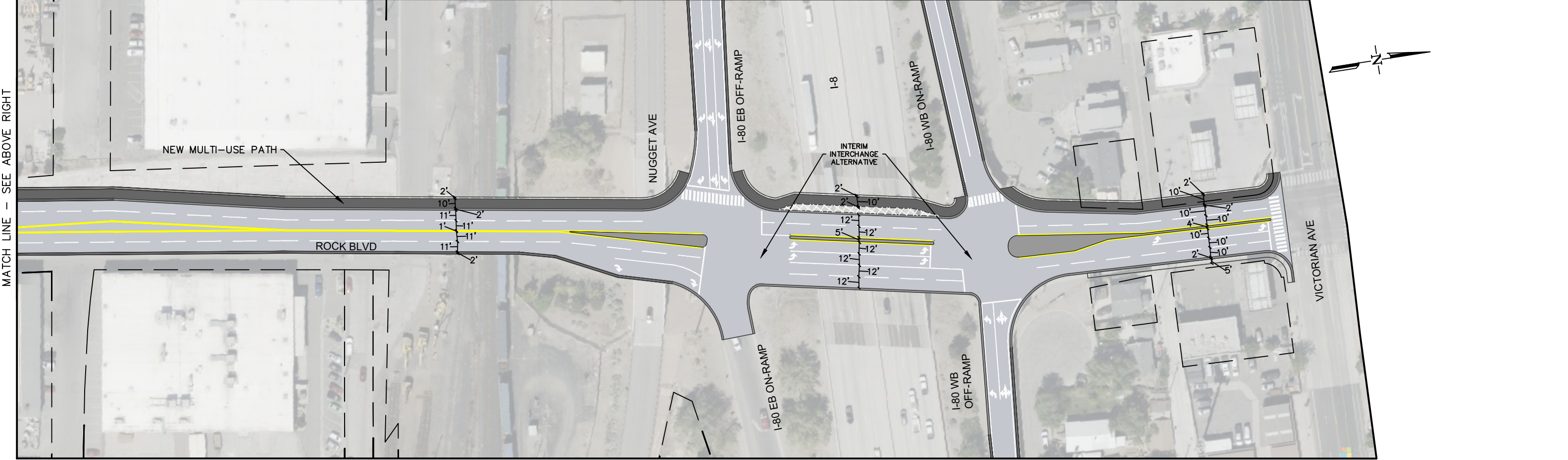
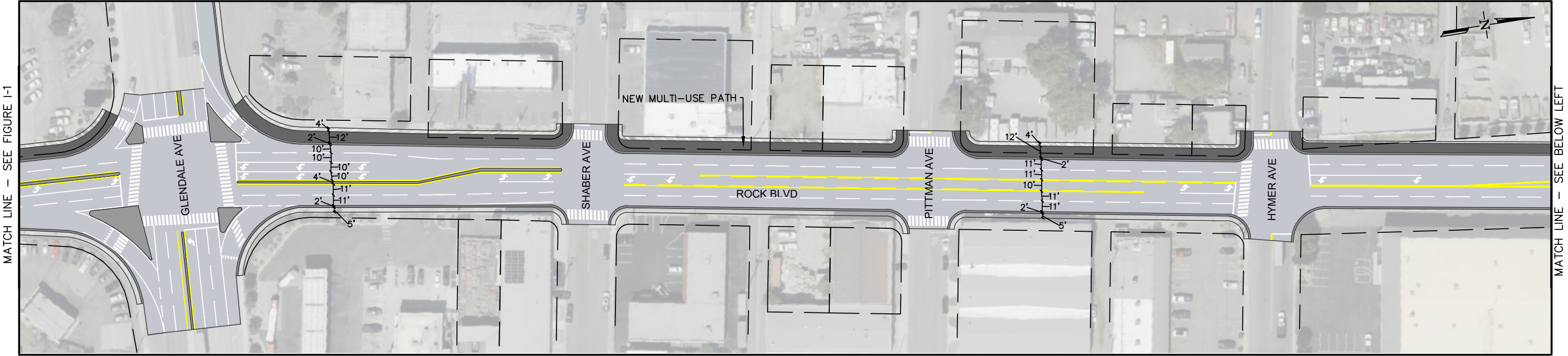
## APPENDIX I

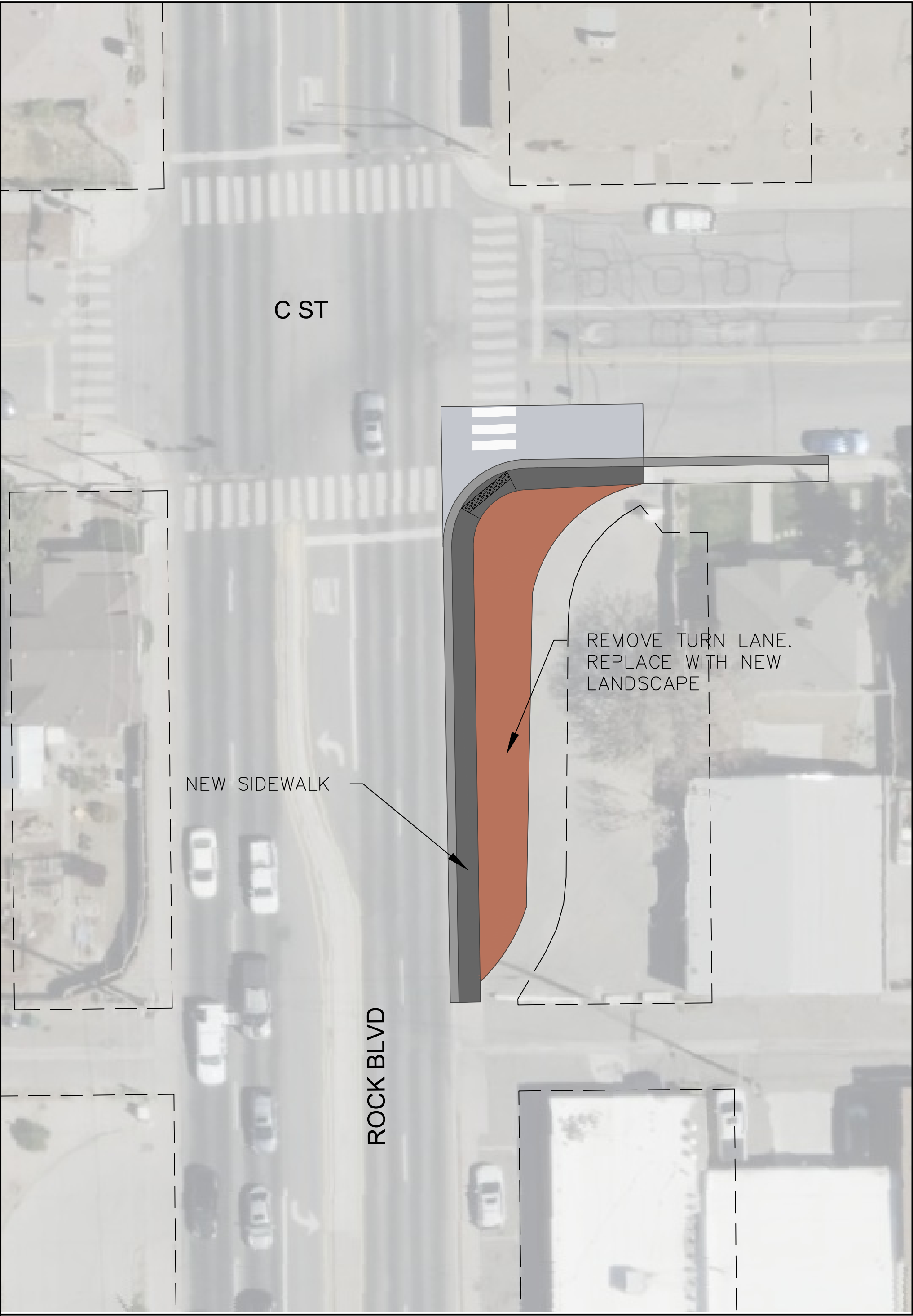
### **Concepts of Recommended Potential Improvements**



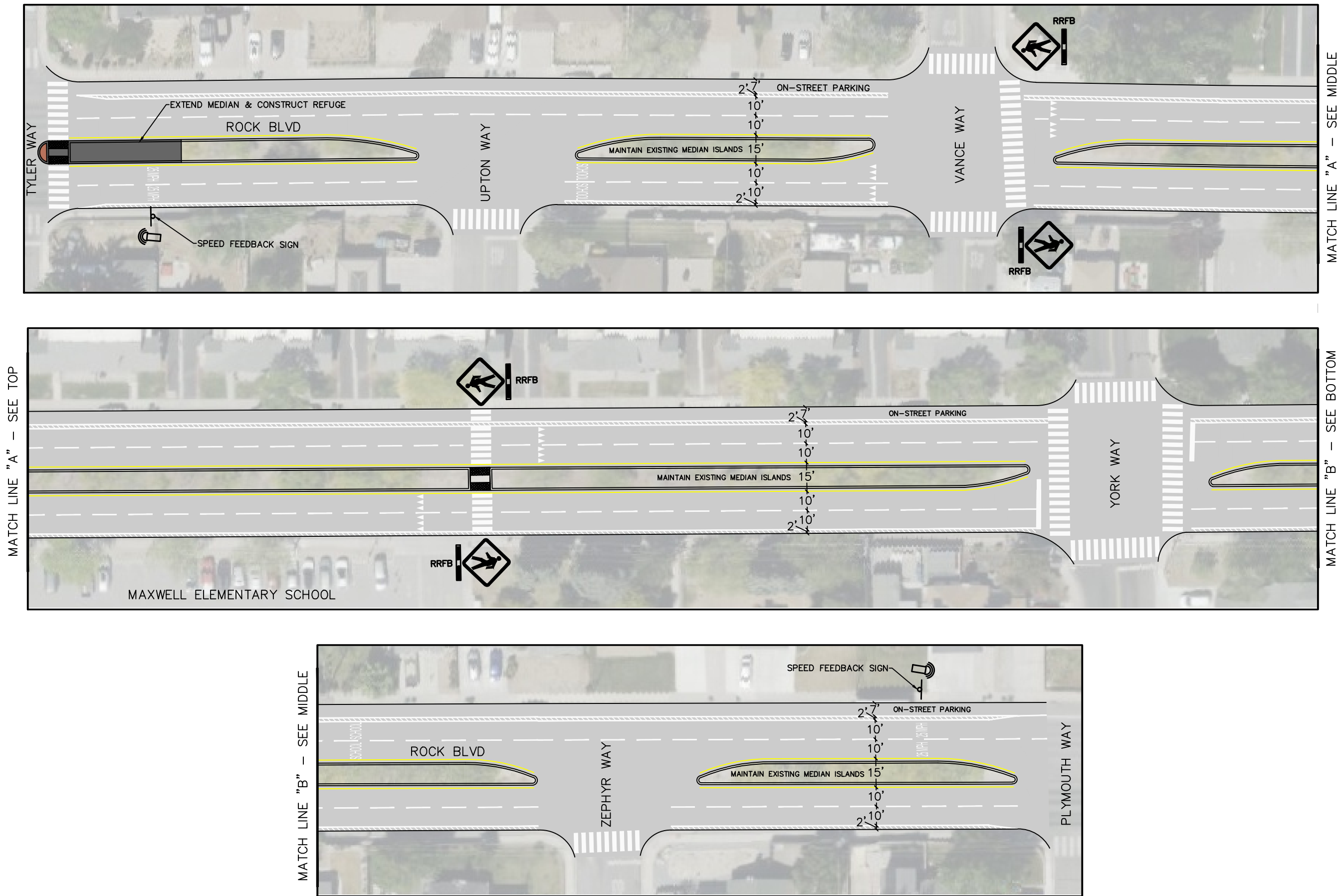






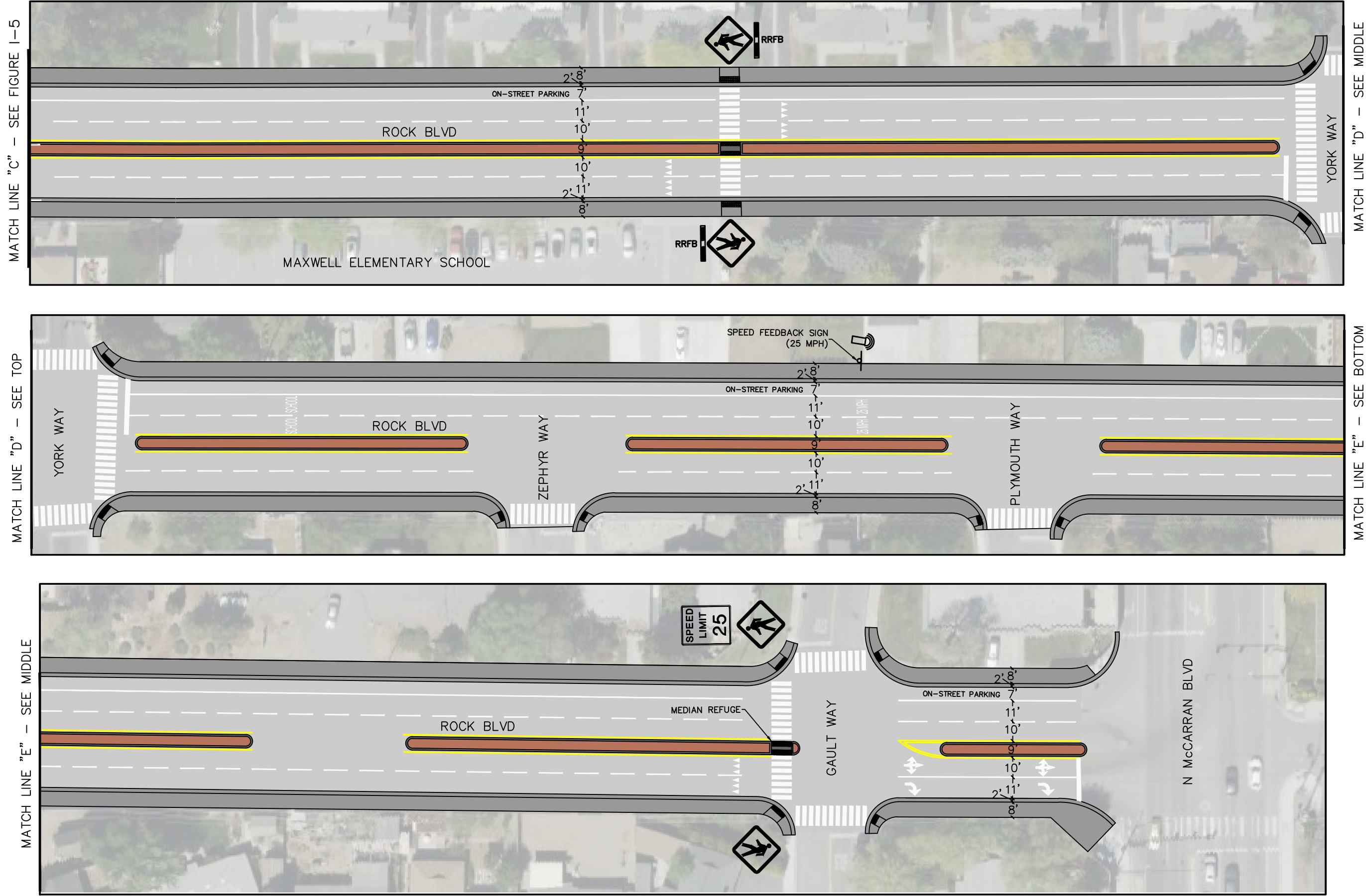












## APPENDIX J

### **Cost Estimate Details**



## AGENDA ITEM 5.3 (A)

### I-80 Interchange Modifications Level 1

|                                                                               |                  |
|-------------------------------------------------------------------------------|------------------|
| Removal/Demolition/Modification (roadway striping, signing)                   | \$ 12,000        |
| Construct Improvements (roadway striping, signing)                            | \$ 35,000        |
| Design Services (survey, engineering)                                         | \$ 10,000        |
| Construction Services (staking, testing, inspection, construction management) | \$ 10,000        |
| 10% Contingency                                                               | \$ 7,000         |
|                                                                               | <b>\$ 80,000</b> |

### Wayfinding Signage

|                                                                               |                  |
|-------------------------------------------------------------------------------|------------------|
| Removal/Demolition/Modification                                               | \$ -             |
| Construct Improvements (route/wayfinding signs)                               | \$ 20,000        |
| Design Services (survey, engineering)                                         | \$ 15,000        |
| Construction Services (staking, testing, inspection, construction management) | \$ 10,000        |
| 10% Contingency                                                               | \$ 5,000         |
|                                                                               | <b>\$ 50,000</b> |

### Remove Right Turn Slip Lane at C Street

|                                                                                               |                   |
|-----------------------------------------------------------------------------------------------|-------------------|
| Removal/Demolition/Modification (curb and gutter, sidewalk, landscaping)                      | \$ 54,000         |
| Construct Improvements (roadway reconstruct, curb and gutter, sidewalk, signage and striping) | \$ 150,000        |
| Traffic Signal Modifications                                                                  | \$ 80,000         |
| Design Services (survey, engineering)                                                         | \$ 40,000         |
| Construction Services (staking, testing, inspection, construction management)                 | \$ 40,000         |
| 10% Contingency                                                                               | \$ 36,000         |
|                                                                                               | <b>\$ 400,000</b> |

### Crossing Treatments (F through I Street)

|                                                                                  |                   |
|----------------------------------------------------------------------------------|-------------------|
| Removal/Demolition/Modification (roadway, curb and gutter, sidewalk)             | \$ 64,000         |
| Construct Improvements (roadway reconstruct, median, RRFB, signage and striping) | \$ 220,000        |
| Design Services (survey, engineering)                                            | \$ 40,000         |
| Construction Services (staking, testing, inspection, construction management)    | \$ 40,000         |
| 10% Contingency                                                                  | \$ 36,000         |
|                                                                                  | <b>\$ 400,000</b> |

### Shared Roadway (B-5)

|                                                                               |                  |
|-------------------------------------------------------------------------------|------------------|
| Removal/Demolition/Modification                                               | \$ -             |
| Construct Improvements (signage and striping)                                 | \$ 25,000        |
| Design Services (survey, engineering)                                         | \$ 10,000        |
| Construction Services (staking, testing, inspection, construction management) | \$ 10,000        |
| 10% Contingency                                                               | \$ 5,000         |
|                                                                               | <b>\$ 50,000</b> |

### Widen Sidewalk (15th to Oddie) (B-3)

|                                                                                                          |                   |
|----------------------------------------------------------------------------------------------------------|-------------------|
| Removal/Demolition/Modification (curb and gutter, sidewalk, utilities, landscaping, etc.)                | \$ 100,000        |
| Construct Improvements (multi-use path, roadway reconstruct, barrier rail, median, signage and striping) | \$ 376,000        |
| Design Services (survey, engineering)                                                                    | \$ 80,000         |
| Construction Services (staking, testing, inspection, construction management)                            | \$ 80,000         |
| 10% Contingency                                                                                          | \$ 64,000         |
|                                                                                                          | <b>\$ 700,000</b> |

### Speed Management (Tyler to Plymouth)

|                                                                               |                   |
|-------------------------------------------------------------------------------|-------------------|
| Removal/Demolition/Modification (roadway striping)                            | \$ 43,000         |
| Construct Improvements (signage and roadway striping)                         | \$ 150,000        |
| Design Services (survey, engineering)                                         | \$ 40,000         |
| Construction Services (staking, testing, inspection, construction management) | \$ 40,000         |
| 10% Contingency                                                               | \$ 27,000         |
|                                                                               | <b>\$ 300,000</b> |

## AGENDA ITEM 5.3 (A)

### Crossing Treatments (Gault, Maxwell ES, Vance, Tyler)

|                                                                                  |                   |
|----------------------------------------------------------------------------------|-------------------|
| Removal/Demolition/Modification (roadway, curb and gutter, sidewalk)             | \$ 126,000        |
| Construct Improvements (roadway reconstruct, median, RRFB, signage and striping) | \$ 350,000        |
| Design Services (survey, engineering)                                            | \$ 80,000         |
| Construction Services (staking, testing, inspection, construction management)    | \$ 80,000         |
| 10% Contingency                                                                  | \$ 64,000         |
|                                                                                  | <b>\$ 700,000</b> |

### Dual Northbound Right Turn at McCarran

|                                                                               |                  |
|-------------------------------------------------------------------------------|------------------|
| Removal/Demolition/Modification (roadway striping)                            | \$ 10,000        |
| Construct Improvements (roadway striping, signage, and signal mods)           | \$ 33,000        |
| Design Services (survey, engineering)                                         | \$ 10,000        |
| Construction Services (staking, testing, inspection, construction management) | \$ 10,000        |
| 10% Contingency                                                               | \$ 7,000         |
|                                                                               | <b>\$ 70,000</b> |

### Transit Improvements

|                                                                               |                   |
|-------------------------------------------------------------------------------|-------------------|
| Removal/Demolition/Modification (roadway striping)                            | \$ 32,000         |
| Construct Improvements (roadway striping, signage, and signal mods)           | \$ 100,000        |
| ROW Acquisition (highly variable)                                             | \$ 500,000        |
| Design Services (survey, engineering)                                         | \$ 25,000         |
| Construction Services (staking, testing, inspection, construction management) | \$ 25,000         |
| 10% Contingency                                                               | \$ 68,000         |
|                                                                               | <b>\$ 750,000</b> |

### Multi-Use Path (A-1, A-2, A-4)

|                                                                                                             |                      |
|-------------------------------------------------------------------------------------------------------------|----------------------|
| Removal/Demolition/Modification (curb and gutter, sidewalk, utilities, landscaping)                         | \$ 2,000,000         |
| Construct Improvements (multi-use path, roadway reconstruct, curb, utilities, median, signage and striping) | \$ 9,500,000         |
| Traffic Signal Modifications                                                                                | \$ 1,500,000         |
| ROW Acquisition (highly variable)                                                                           | \$ 3,000,000         |
| Design Services (survey, engineering)                                                                       | \$ 2,000,000         |
| Construction Services (staking, testing, inspection, construction management)                               | \$ 2,000,000         |
| 10% Contingency                                                                                             | \$ 2,000,000         |
|                                                                                                             | <b>\$ 22,000,000</b> |

### Slip Lane Modifications

|                                                                                               |                     |
|-----------------------------------------------------------------------------------------------|---------------------|
| Removal/Demolition/Modification (curb and gutter, sidewalk, landscaping)                      | \$ 200,000          |
| Construct Improvements (roadway reconstruct, curb and gutter, sidewalk, signage and striping) | \$ 500,000          |
| Design Services (survey, engineering)                                                         | \$ 110,000          |
| Construction Services (staking, testing, inspection, construction management)                 | \$ 100,000          |
| 10% Contingency                                                                               | \$ 90,000           |
|                                                                                               | <b>\$ 1,000,000</b> |

### I-80 Interchange Modifications Level 2

|                                                                               |                   |
|-------------------------------------------------------------------------------|-------------------|
| Removal/Demolition/Modification (median, roadway)                             | \$ 50,000         |
| Construct Improvements (median, roadway, signage and striping)                | \$ 100,000        |
| Traffic Signal Modifications                                                  | \$ 40,000         |
| Design Services (survey, engineering)                                         | \$ 40,000         |
| Construction Services (staking, testing, inspection, construction management) | \$ 40,000         |
| 10% Contingency                                                               | \$ 30,000         |
|                                                                               | <b>\$ 300,000</b> |



## AGENDA ITEM 5.3 (A)

### **I-80 Interchange Modifications Level 3**

|                                                                                                           |                     |
|-----------------------------------------------------------------------------------------------------------|---------------------|
| Removal/Demolition/Modification (curb and gutter, sidewalk, utilities, landscaping)                       | \$ 750,000          |
| Construct Improvements (off-ramp widening and reconstruct, curb, utilities, median, signage and striping) | \$ 2,500,000        |
| Traffic Signal Modifications                                                                              | \$ 300,000          |
| Design Services (survey, engineering)                                                                     | \$ 500,000          |
| Construction Services (staking, testing, inspection, construction management)                             | \$ 500,000          |
| 10% Contingency                                                                                           | \$ 450,000          |
|                                                                                                           | <b>\$ 5,000,000</b> |

### **Widen Sidewalk on Both Sides (B-4)**

|                                                                                              |                      |
|----------------------------------------------------------------------------------------------|----------------------|
| Removal/Demolition/Modification (curb and gutter, sidewalk, roadway, utilities, landscaping) | \$ 2,000,000         |
| Construct Improvements (curb and gutter, sidewalk, utilities, median, signage and striping)  | \$ 8,500,000         |
| Traffic Signal Modifications                                                                 | \$ 140,000           |
| Design Services (survey, engineering)                                                        | \$ 1,500,000         |
| Construction Services (staking, testing, inspection, construction management)                | \$ 1,500,000         |
| 10% Contingency                                                                              | \$ 1,360,000         |
|                                                                                              | <b>\$ 15,000,000</b> |

| PMX AT Crashes            | PMX InjuryType  | PMX UI    | WebmapSymbology                    | KTWL Study Corridors | CrashLocati | PMX NormalizeTim | PMX TimeFrames | PMX DayTime      | UserType       | PMX Intersection Location    |
|---------------------------|-----------------|-----------|------------------------------------|----------------------|-------------|------------------|----------------|------------------|----------------|------------------------------|
| Vehicles Only             | Unknown         | PMX_116   | Property Damage Only               | PDO                  |             | 3:05:00 AM       | 3:00:00 AM     | 1/6/2019 3:05    | 0 Vehicle Only | HYMER AVE & S ROCK BLVD      |
| Vehicles Only             | Possible Injury | PMX_308   | Possible/Minor Injury              | <Null>               |             | 2:04:00 PM       | 2:00:00 PM     | 1/11/2019 14:04  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_446   | Property Damage Only               | PDO                  |             | 7:06:00 AM       | 7:00:00 AM     | 1/24/2019 7:06   | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Possible Injury | PMX_463   | Possible/Minor Injury              | <Null>               |             | 5:27:00 AM       | 5:00:00 AM     | 1/25/2019 5:27   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_584   | Property Damage Only               | PDO                  |             | 5:43:00 PM       | 6:00:00 PM     | 1/28/2019 17:43  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_506   | Property Damage Only               | PDO                  |             | 6:26:00 PM       | 6:00:00 PM     | 2/1/2019 18:26   | 0 Vehicle Only | IR80W TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_522   | Property Damage Only               | PDO                  |             | 2:47:00 PM       | 3:00:00 PM     | 2/1/2019 14:47   | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17 |
| Vehicles Only             | Minor Injury    | PMX_684   | Possible/Minor Injury              | <Null>               |             | 6:30:00 AM       | 7:00:00 AM     | 2/7/2019 6:30    | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_681   | Property Damage Only               | PDO                  |             | 8:19:00 AM       | 8:00:00 AM     | 2/9/2019 8:19    | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_936   | Property Damage Only               | PDO                  |             | 6:50:00 AM       | 7:00:00 AM     | 2/11/2019 6:50   | 0 Vehicle Only | G ST & ROCK BLVD             |
| Vehicles Only             | Minor Injury    | PMX_947   | Possible/Minor Injury              | <Null>               |             | 6:16:00 PM       | 6:00:00 PM     | 2/13/2019 18:16  | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Unknown         | PMX_19411 | Property Damage Only               | PDO                  |             | 6:38:00 AM       | 7:00:00 AM     | 2/17/2019 6:38   | 0 Vehicle Only | GLENDALE AV & S ROCK BL      |
| Vehicles Only             | Unknown         | PMX_1214  | Property Damage Only               | PDO                  |             | 8:02:00 AM       | 8:00:00 AM     | 2/18/2019 8:02   | 0 Vehicle Only | FREEMPORT BLVD & S ROCK BLVD |
| Vehicles Only             | Possible Injury | PMX_1133  | Possible/Minor Injury              | <Null>               |             | 1:17:00 PM       | 1:00:00 PM     | 2/18/2019 13:17  | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17 |
| Vehicles Only             | Possible Injury | PMX_1033  | Possible/Minor Injury              | <Null>               |             | 4:41:00 AM       | 5:00:00 AM     | 2/22/2019 4:41   | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Possible Injury | PMX_1273  | Possible/Minor Injury              | <Null>               |             | 7:12:00 PM       | 7:00:00 PM     | 3/1/2019 19:12   | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Possible Injury | PMX_1479  | Possible/Minor Injury              | <Null>               |             | 1:46:00 PM       | 2:00:00 PM     | 3/6/2019 13:46   | 0 Vehicle Only | F ST & ROCK BLVD             |
| Vehicles Only             | Unknown         | PMX_1482  | Property Damage Only               | PDO                  |             | 4:03:00 PM       | 4:00:00 PM     | 3/7/2019 16:03   | 0 Vehicle Only | ROCK BLVD & SR659            |
| Involved Bicyclist or Ped | Minor Injury    | PMX_1406  | Possible/Minor Injury (Pedestrian) | <Null>               |             | 10:38:00 AM      | 11:00:00 AM    | 3/8/2019 10:38   | 0 Pedestrian   | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | No Injury       | PMX_19811 | Property Damage Only               | PDO                  |             | 6:14:00 AM       | 6:00:00 AM     | 3/9/2019 6:14    | 0 Vehicle Only | GREENBRAE DR & ROCK BL       |
| Involved Bicyclist or Ped | Minor Injury    | PMX_1593  | Possible/Minor Injury (Pedestrian) | <Null>               |             | 6:32:00 PM       | 7:00:00 PM     | 3/12/2019 18:32  | 0 Pedestrian   | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Possible Injury | PMX_1533  | Possible/Minor Injury              | <Null>               |             | 7:31:00 AM       | 8:00:00 AM     | 3/15/2019 7:31   | 0 Vehicle Only | SR668 & SR668 TO IR80W INT17 |
| Vehicles Only             | Unknown         | PMX_1687  | Property Damage Only               | PDO                  |             | 3:55:00 PM       | 4:00:00 PM     | 3/20/2019 15:55  | 0 Vehicle Only | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_1723  | Property Damage Only               | PDO                  |             | 7:45:00 AM       | 8:00:00 AM     | 3/21/2019 7:45   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_1693  | Property Damage Only               | PDO                  |             | 10:30:00 AM      | 11:00:00 AM    | 3/21/2019 10:30  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_1847  | Property Damage Only               | PDO                  |             | 5:05:00 PM       | 5:00:00 PM     | 4/1/2019 17:05   | 0 Vehicle Only | OXFORD AVE & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_1913  | Property Damage Only               | PDO                  |             | 7:03:00 PM       | 7:00:00 PM     | 4/2/2019 19:03   | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Unknown         | PMX_1979  | Property Damage Only               | PDO                  |             | 4:07:00 PM       | 4:00:00 PM     | 4/5/2019 16:07   | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Unknown         | PMX_1934  | Property Damage Only               | PDO                  |             | 2:24:00 AM       | 2:00:00 AM     | 4/6/2019 2:24    | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Possible Injury | PMX_1927  | Possible/Minor Injury              | <Null>               |             | 4:00:00 PM       | 4:00:00 PM     | 4/8/2019 16:00   | 0 Vehicle Only | F ST & ROCK BLVD             |
| Vehicles Only             | Unknown         | PMX_2044  | Property Damage Only               | PDO                  |             | 12:55:00 PM      | 1:00:00 PM     | 4/12/2019 12:55  | 0 Vehicle Only | GREG ST & S ROCK BLVD        |
| Vehicles Only             | Possible Injury | PMX_2007  | Possible/Minor Injury              | <Null>               |             | 3:29:00 PM       | 3:00:00 PM     | 4/14/2019 15:29  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_2002  | Property Damage Only               | PDO                  |             | 4:24:00 AM       | 4:00:00 AM     | 4/15/2019 4:24   | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_2243  | Property Damage Only               | PDO                  |             | 12:01:00 AM      | 12:00:00 AM    | 4/24/2019 0:01   | 0 Vehicle Only | GAULT WAY & ROCK BLVD        |
| Vehicles Only             | Unknown         | PMX_2365  | Property Damage Only               | PDO                  |             | 10:08:00 PM      | 10:00:00 PM    | 4/25/2019 22:08  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD     |
| Vehicles Only             | Possible Injury | PMX_2263  | Possible/Minor Injury              | <Null>               |             | 8:23:00 AM       | 8:00:00 AM     | 4/30/2019 8:23   | 0 Vehicle Only | GREG ST & S ROCK BLVD        |
| Vehicles Only             | Possible Injury | PMX_2277  | Possible/Minor Injury              | <Null>               |             | 1:44:00 PM       | 2:00:00 PM     | 5/2/2019 13:44   | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17 |
| Vehicles Only             | Minor Injury    | PMX_2513  | Possible/Minor Injury              | <Null>               |             | 2:48:00 PM       | 3:00:00 PM     | 5/4/2019 14:48   | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Possible Injury | PMX_2425  | Possible/Minor Injury              | <Null>               |             | 8:21:00 AM       | 8:00:00 AM     | 5/6/2019 8:21    | 0 Vehicle Only | 1ST & ROCK BLVD              |
| Vehicles Only             | Possible Injury | PMX_2663  | Possible/Minor Injury              | <Null>               |             | 5:55:00 PM       | 6:00:00 PM     | 5/10/2019 17:55  | 0 Vehicle Only | S ROCK BLVD & SHABER AVE     |
| Vehicles Only             | Unknown         | PMX_2587  | Property Damage Only               | PDO                  |             | 11:27:00 PM      | 11:00:00 PM    | 5/14/2019 23:27  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_2684  | Property Damage Only               | PDO                  |             | 5:15:00 PM       | 5:00:00 PM     | 5/23/2019 17:15  | 0 Vehicle Only | HYMER AVE & S ROCK BLVD      |
| Vehicles Only             | Unknown         | PMX_2788  | Property Damage Only               | PDO                  |             | 8:09:00 PM       | 8:00:00 PM     | 5/24/2019 20:09  | 0 Vehicle Only | H ST & ROCK BLVD             |
| Vehicles Only             | Minor Injury    | PMX_2988  | Possible/Minor Injury              | <Null>               |             | 5:05:00 PM       | 5:00:00 PM     | 6/1/2019 17:05   | 0 Vehicle Only | ROCK BLVD & YORK WAY         |
| Vehicles Only             | Unknown         | PMX_2997  | Property Damage Only               | PDO                  |             | 7:00:00 PM       | 7:00:00 PM     | 6/4/2019 19:00   | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Unknown         | PMX_3211  | Property Damage Only               | PDO                  |             | 3:11:00 PM       | 3:00:00 PM     | 6/17/2019 15:11  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Possible Injury | PMX_3238  | Possible/Minor Injury              | <Null>               |             | 4:45:00 PM       | 5:00:00 PM     | 6/18/2019 16:45  | 0 Vehicle Only | ROCK BLVD & SR659            |
| Involved Bicyclist or Ped | Unknown         | PMX_3242  | Property Damage Only               | PDO                  |             | 5:59:00 PM       | 6:00:00 PM     | 6/19/2019 17:59  | 0 Bicyclist    | ROCK BLVD & SR649 WAY        |
| Vehicles Only             | Unknown         | PMX_3281  | Property Damage Only               | PDO                  |             | 6:56:00 AM       | 7:00:00 AM     | 6/21/2019 6:56   | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Possible Injury | PMX_3203  | Possible/Minor Injury              | <Null>               |             | 1:58:00 AM       | 2:00:00 AM     | 6/22/2019 1:58   | 0 Vehicle Only | SR668 & SR668 TO IR80W INT17 |
| Vehicles Only             | Unknown         | PMX_3447  | Property Damage Only               | PDO                  |             | 12:27:00 PM      | 12:00:00 PM    | 6/24/2019 12:27  | 0 Vehicle Only | IR80W TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_3409  | Property Damage Only               | PDO                  |             | 12:16:00 PM      | 12:00:00 PM    | 6/27/2019 12:16  | 0 Vehicle Only | HYMER AVE & S ROCK BLVD      |
| Vehicles Only             | Unknown         | PMX_3383  | Property Damage Only               | PDO                  |             | 6:42:00 AM       | 7:00:00 AM     | 6/28/2019 6:42   | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Possible Injury | PMX_3536  | Possible/Minor Injury              | <Null>               |             | 12:31:00 PM      | 1:00:00 PM     | 7/2/2019 12:31   | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Unknown         | PMX_3756  | Property Damage Only               | PDO                  |             | 7:23:00 PM       | 7:00:00 PM     | 7/10/2019 19:23  | 0 Vehicle Only | G ST & ROCK BLVD             |
| Vehicles Only             | Unknown         | PMX_3684  | Property Damage Only               | PDO                  |             | 1:10:00 PM       | 1:00:00 PM     | 7/13/2019 13:10  | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Possible Injury | PMX_3888  | Possible/Minor Injury              | <Null>               |             | 3:15:00 PM       | 3:00:00 PM     | 7/17/2019 15:15  | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Unknown         | PMX_4019  | Property Damage Only               | PDO                  |             | 8:00:00 AM       | 8:00:00 AM     | 7/26/2019 8:00   | 0 Vehicle Only | HYMER AVE & S ROCK BLVD      |
| Vehicles Only             | Unknown         | PMX_4199  | Property Damage Only               | PDO                  |             | 6:16:00 PM       | 6:00:00 PM     | 8/1/2019 18:16   | 0 Vehicle Only | IR80W TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_4125  | Property Damage Only               | PDO                  |             | 10:11:00 PM      | 10:00:00 PM    | 8/3/2019 22:11   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Possible Injury | PMX_4217  | Possible/Minor Injury              | <Null>               |             | 1:45:00 PM       | 2:00:00 PM     | 8/4/2019 13:45   | 0 Vehicle Only | PLYMOUTH WAY & ROCK BLVD     |
| Vehicles Only             | Possible Injury | PMX_4395  | Possible/Minor Injury              | <Null>               |             | 5:30:00 PM       | 6:00:00 PM     | 8/9/2019 17:30   | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Possible Injury | PMX_4280  | Possible/Minor Injury              | <Null>               |             | 2:07:00 PM       | 2:00:00 PM     | 8/14/2019 14:07  | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17 |
| Vehicles Only             | Unknown         | PMX_4519  | Property Damage Only               | PDO                  |             | 7:43:00 PM       | 8:00:00 PM     | 8/20/2019 19:43  | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | Unknown         | PMX_4622  | Property Damage Only               | PDO                  |             | 10:40:00 AM      | 11:00:00 AM    | 8/25/2019 10:40  | 0 Vehicle Only | PITTMAN AVE & S ROCK BLVD    |
| Vehicles Only             | Unknown         | PMX_4606  | Property Damage Only               | PDO                  |             | 12:35:00 PM      | 1:00:00 PM     | 8/26/2019 12:35  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_4645  | Property Damage Only               | PDO                  |             | 12:30:00 PM      | 1:00:00 PM     | 8/28/2019 12:30  | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17 |
| Vehicles Only             | Unknown         | PMX_4884  | Property Damage Only               | PDO                  |             | 9:42:00 PM       | 10:00:00 PM    | 8/30/2019 21:42  | 0 Vehicle Only | C ST & ROCK BLVD             |
| Vehicles Only             | Unknown         | PMX_4882  | Property Damage Only               | PDO                  |             | 4:11:00 AM       | 4:00:00 AM     | 8/31/2019 4:11   | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | Unknown         | PMX_4781  | Property Damage Only               | PDO                  |             | 11:08:00 PM      | 11:00:00 PM    | 9/2/2019 23:08   | 0 Vehicle Only | GREG ST & S ROCK BLVD        |
| Involved Bicyclist or Ped | Minor Injury    | PMX_4822  | Possible/Minor Injury (Pedestrian) | <Null>               |             | 6:14:00 AM       | 6:00:00 AM     | 9/5/2019 6:14    | 0 Pedestrian   | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | Minor Injury    | PMX_4938  | Possible/Minor Injury              | <Null>               |             | 4:25:00 PM       | 4:00:00 PM     | 9/11/2019 16:25  | 0 Vehicle Only | 1ST & ROCK BLVD              |
| Vehicles Only             | Unknown         | PMX_5265  | Property Damage Only               | PDO                  |             | 12:05:00 PM      | 12:00:00 PM    | 9/20/2019 12:05  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_5335  | Property Damage Only               | PDO                  |             | 6:42:00 AM       | 7:00:00 AM     | 9/20/2019 6:42   | 0 Vehicle Only | IR80W TO SR668 INT17 & SR668 |
| Vehicles Only             | Possible Injury | PMX_5545  | Possible/Minor Injury              | <Null>               |             | 4:10:00 PM       | 4:00:00 PM     | 10/8/2019 16:10  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Possible Injury | PMX_5554  | Possible/Minor Injury              | <Null>               |             | 2:25:00 PM       | 2:00:00 PM     | 10/9/2019 14:25  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_5629  | Property Damage Only               | PDO                  |             | 12:32:00 AM      | 1:00:00 AM     | 10/12/2019 0:32  | 0 Vehicle Only | ROCK BLVD & TYLER WAY        |
| Vehicles Only             | Unknown         | PMX_5699  | Property Damage Only               | PDO                  |             | 8:00:00 AM       | 8:00:00 AM     | 10/14/2019 8:00  | 0 Vehicle Only | FREEMPORT BLVD & S ROCK BLVD |
| Vehicles Only             | Minor Injury    | PMX_5865  | Possible/Minor Injury              | <Null>               |             | 7:17:00 PM       | 7:00:00 PM     | 10/20/2019 19:17 | 0 Vehicle Only | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_5816  | Property Damage Only               | PDO                  |             | 5:38:00 AM       | 6:00:00 AM     | 10/21/2019 5:38  | 0 Vehicle Only | F ST & ROCK BLVD             |
| Vehicles Only             | Unknown         | PMX_5868  | Property Damage Only               | PDO                  |             | 1:33:00 PM       | 2:00:00 PM     | 10/22/2019 13:33 | 0 Vehicle Only | F ST & ROCK BLVD             |
| Vehicles Only             | Possible Injury | PMX_5811  | Possible/Minor Injury              | <Null>               |             | 4:50:00 PM       | 5:00:00 PM     | 10/23/2019 16:50 | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_5920  | Property Damage Only               | PDO                  |             | 1:02:00 PM       | 1:00:00 PM     | 10/24/2019 13:02 | 0 Vehicle Only | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | Possible Injury | PMX_6117  | Possible/Minor Injury              | <Null>               |             | 1:16:00 PM       | 1:00:00 PM     | 11/6/2019 13:16  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Minor Injury    | PMX_6196  | Possible/Minor Injury              | <Null>               |             | 5:09:00 PM       | 5:00:00 PM     | 11/10/2019 17:09 | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | Unknown         | PMX_6399  | Property Damage Only               | PDO                  |             | 11:32:00 PM      | 12:00:00 AM    | 11/16/2019 23:32 | 0 Vehicle Only | F ST & ROCK BLVD             |
| Vehicles Only             | Unknown         | PMX_6424  | Property Damage Only               | PDO                  |             | 7:46:00 AM       | 8:00:00 AM     | 11/17/2019 7:46  | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | Possible Injury | PMX_6568  | Possible/Minor Injury              | <Null>               |             | 7:55:00 AM       | 8:00:00 AM     | 11/26/2019 7:55  | 0 Vehicle Only | HYMER AVE & S ROCK BLVD      |
| Vehicles Only             | Unknown         | PMX_6829  | Property Damage Only               | PDO                  |             | 6:51:00 AM       | 7:00:00 AM     | 12/6/2019 6:51   | 0 Vehicle Only | S ROCK BLVD & SR648          |
| Vehicles Only             | Unknown         | PMX_6904  | Property Damage Only               | PDO                  |             | 2:39:00 PM       | 3:00:00 PM     | 12/8/2019 14:39  | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | Unknown         | PMX_6847  | Property Damage Only               | PDO                  |             | 8:54:00 PM       | 9:00:00 PM     | 12/11/2019 20:54 | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_6930  | Property Damage Only               | PDO                  |             | 4:02:00 PM       | 4:00:00 PM     | 12/14/2019 16:02 | 0 Vehicle Only | IR80W TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_7029  | Property Damage Only               | PDO                  |             | 7:19:00 PM       | 7:00:00 PM     | 12/15/2019 19:19 | 0 Vehicle Only | IR80W TO SR668 INT17 & SR668 |

| PMX AT Crashes            | PMX InjuryType  | PMX UI    | WebmapSymbology                    | KTWL Study Corridors  | CrashLocation | PMX NormalizeTime | PMX Timeframes | PMX DayTime      | UserType       | PMX Intersection Location    |
|---------------------------|-----------------|-----------|------------------------------------|-----------------------|---------------|-------------------|----------------|------------------|----------------|------------------------------|
| Vehicles Only             | Minor Injury    | PMX_6958  | Possible/Minor Injury              | <Null>                |               | 12:47:00 PM       | 1:00:00 PM     | 12/16/2019 12:47 | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_7120  | Property Damage Only               | PDO                   |               | 10:00:00 AM       | 10:00:00 AM    | 12/19/2019 10:00 | 0 Vehicle Only | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_7267  | Property Damage Only               | PDO                   |               | 4:29:00 PM        | 4:00:00 PM     | 1/2/2020 16:29   | 0 Vehicle Only | 15TH ST & ROCK BLVD          |
| Vehicles Only             | Unknown         | PMX_7258  | Property Damage Only               | PDO                   |               | 9:07:00 AM        | 9:00:00 AM     | 1/4/2020 9:07    | 0 Vehicle Only | 15TH ST & ROCK BLVD          |
| Vehicles Only             | Minor Injury    | PMX_7387  | Possible/Minor Injury              | <Null>                |               | 6:07:00 PM        | 6:00:00 PM     | 1/5/2020 18:07   | 0 Vehicle Only | 15TH ST & ROCK BLVD          |
| Vehicles Only             | Unknown         | PMX_7470  | Property Damage Only               | PDO                   |               | 12:29:00 PM       | 12:00:00 PM    | 1/6/2020 12:29   | 0 Vehicle Only | GREG ST & ROCK BLVD          |
| Vehicles Only             | Unknown         | PMX_7460  | Property Damage Only               | PDO                   |               | 5:30:00 PM        | 6:00:00 PM     | 1/6/2020 17:30   | 0 Vehicle Only | PLYMOUTH WAY & ROCK BLVD     |
| Vehicles Only             | Possible Injury | PMX_7652  | Possible/Minor Injury              | <Null>                |               | 10:26:00 AM       | 10:00:00 AM    | 1/24/2020 10:26  | 0 Vehicle Only | FREEMONT BLVD & ROCK BLVD    |
| Vehicles Only             | Possible Injury | PMX_7617  | Possible/Minor Injury              | <Null>                |               | 12:27:00 PM       | 12:00:00 PM    | 1/27/2020 12:27  | 0 Vehicle Only | 1ST & ROCK BLVD              |
| Vehicles Only             | Unknown         | PMX_7860  | Property Damage Only               | PDO                   |               | 6:35:00 AM        | 7:00:00 AM     | 2/4/2020 6:35    | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD     |
| Vehicles Only             | Unknown         | PMX_7737  | Property Damage Only               | PDO                   |               | 10:15:00 AM       | 10:00:00 AM    | 2/4/2020 10:15   | 0 Vehicle Only | ROCK BLVD & SR648            |
| Vehicles Only             | Serious Injury  | PMX_13192 | Serious Injury                     | Serious Injury        |               | 9:10:00 AM        | 9:00:00 AM     | 2/7/2020 9:10    | 0 Vehicle Only | GREG ST & S ROCK BLVD        |
| Vehicles Only             | Possible Injury | PMX_7919  | Possible/Minor Injury              | <Null>                |               | 5:50:00 PM        | 6:00:00 PM     | 2/10/2020 17:50  | 0 Vehicle Only | PITTMAN AVE & ROCK BLVD      |
| Vehicles Only             | Unknown         | PMX_7939  | Property Damage Only               | PDO                   |               | 3:05:00 PM        | 3:00:00 PM     | 2/12/2020 15:05  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_8292  | Property Damage Only               | PDO                   |               | 3:47:00 PM        | 4:00:00 PM     | 2/21/2020 15:47  | 0 Vehicle Only | COMMERCE ST & ROCK BLVD      |
| Vehicles Only             | Minor Injury    | PMX_8201  | Possible/Minor Injury              | <Null>                |               | 5:33:00 PM        | 6:00:00 PM     | 2/23/2020 17:33  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Serious Injury  | PMX_8327  | Serious Injury                     | <Null>                |               | 8:55:00 PM        | 9:00:00 PM     | 2/29/2020 20:55  | 0 Vehicle Only | PROSPECT AVE & ROCK BLVD     |
| Vehicles Only             | Unknown         | PMX_8320  | Property Damage Only               | PDO                   |               | 10:27:00 AM       | 10:00:00 AM    | 2/29/2020 10:27  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Involved Bicyclist or Ped | Possible Injury | PMX_8324  | Possible/Minor Injury (Pedestrian) | <Null>                |               | 2:52:00 PM        | 3:00:00 PM     | 3/2/2020 14:52   | 0 Pedestrian   | GREENBRAE DR & ROCK BLVD     |
| Vehicles Only             | Unknown         | PMX_8407  | Property Damage Only               | PDO                   |               | 5:38:00 PM        | 6:00:00 PM     | 3/4/2020 17:38   | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD     |
| Vehicles Only             | Serious Injury  | PMX_8440  | Serious Injury                     | <Null>                |               | 10:08:00 PM       | 10:00:00 PM    | 3/5/2020 22:08   | 0 Vehicle Only | SR668 & SR668 TO IR80W INT17 |
| Vehicles Only             | Unknown         | PMX_8325  | Property Damage Only               | PDO                   |               | 1:13:00 PM        | 1:00:00 PM     | 3/6/2020 13:13   | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | Unknown         | PMX_8637  | Property Damage Only               | PDO                   |               | 7:38:00 AM        | 8:00:00 AM     | 3/14/2020 7:38   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Possible Injury | PMX_8677  | Possible/Minor Injury              | <Null>                |               | 4:39:00 PM        | 5:00:00 PM     | 3/19/2020 16:39  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Involved Bicyclist or Ped | Unknown         | PMX_8683  | Property Damage Only               | PDO                   |               | 6:04:00 PM        | 6:00:00 PM     | 3/25/2020 18:04  | 0 Pedestrian   | COMMERCE ST & ROCK BLVD      |
| Vehicles Only             | Unknown         | PMX_8954  | Property Damage Only               | PDO                   |               | 11:14:00 AM       | 11:00:00 AM    | 4/23/2020 11:14  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Minor Injury    | PMX_8976  | Possible/Minor Injury              | <Null>                |               | 5:37:00 PM        | 6:00:00 PM     | 4/26/2020 17:37  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Possible Injury | PMX_9022  | Possible/Minor Injury              | <Null>                |               | 5:40:00 PM        | 6:00:00 PM     | 4/30/2020 17:40  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_9263  | Property Damage Only               | PDO                   |               | 5:25:00 PM        | 5:00:00 PM     | 5/29/2020 17:25  | 0 Vehicle Only | ROCK BLVD & SR648            |
| Vehicles Only             | Possible Injury | PMX_9440  | Possible/Minor Injury              | <Null>                |               | 8:15:00 AM        | 8:00:00 AM     | 6/2/2020 8:15    | 0 Vehicle Only | ROCK BLVD & SR648            |
| Vehicles Only             | Unknown         | PMX_9613  | Property Damage Only               | PDO                   |               | 5:00:00 PM        | 5:00:00 PM     | 6/13/2020 17:00  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_9522  | Property Damage Only               | PDO                   |               | 3:59:00 PM        | 4:00:00 PM     | 6/18/2020 15:59  | 0 Vehicle Only | C ST & ROCK BLVD             |
| Vehicles Only             | Minor Injury    | PMX_9621  | Possible/Minor Injury              | <Null>                |               | 2:26:00 PM        | 2:00:00 PM     | 6/18/2020 14:26  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_9496  | Property Damage Only               | PDO                   |               | 7:30:00 PM        | 8:00:00 PM     | 6/18/2020 19:30  | 0 Vehicle Only | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_9611  | Property Damage Only               | PDO                   |               | 5:04:00 PM        | 5:00:00 PM     | 6/19/2020 17:04  | 0 Vehicle Only | HYMER AVE & ROCK BLVD        |
| Vehicles Only             | Minor Injury    | PMX_9660  | Possible/Minor Injury              | <Null>                |               | 3:28:00 PM        | 3:00:00 PM     | 6/25/2020 15:28  | 0 Vehicle Only | ROCK BLVD & SHABER AVE       |
| Vehicles Only             | Unknown         | PMX_9707  | Property Damage Only               | PDO                   |               | 10:40:00 AM       | 11:00:00 AM    | 6/28/2020 10:40  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Possible Injury | PMX_9665  | Possible/Minor Injury              | <Null>                |               | 12:32:00 PM       | 1:00:00 AM     | 6/28/2020 0:32   | 0 Vehicle Only | OXFORD AVE & ROCK BLVD       |
| Vehicles Only             | Possible Injury | PMX_9746  | Possible/Minor Injury              | <Null>                |               | 2:19:00 PM        | 2:00:00 PM     | 6/30/2020 14:19  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_9829  | Property Damage Only               | PDO                   |               | 4:45:00 PM        | 5:00:00 PM     | 7/2/2020 16:45   | 0 Vehicle Only | FREEMONT BLVD & ROCK BLVD    |
| Vehicles Only             | Unknown         | PMX_9897  | Property Damage Only               | PDO                   |               | 3:32:00 PM        | 4:00:00 PM     | 7/9/2020 15:32   | 0 Vehicle Only | ROCK BLVD & SR648            |
| Vehicles Only             | Unknown         | PMX_10002 | Property Damage Only               | PDO                   |               | 3:37:00 PM        | 4:00:00 PM     | 7/12/2020 15:37  | 0 Vehicle Only | GREG ST & ROCK BLVD          |
| Vehicles Only             | Unknown         | PMX_9930  | Property Damage Only               | PDO                   |               | 7:24:00 PM        | 7:00:00 PM     | 7/17/2020 19:24  | 0 Vehicle Only | 1ST & ROCK BLVD              |
| Vehicles Only             | Unknown         | PMX_9924  | Property Damage Only               | PDO                   |               | 2:39:00 PM        | 3:00:00 PM     | 7/19/2020 14:39  | 0 Vehicle Only | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | Possible Injury | PMX_10168 | Possible/Minor Injury              | <Null>                |               | 4:03:00 PM        | 4:00:00 PM     | 7/27/2020 16:03  | 0 Vehicle Only | ROCK BLVD & RUSSELL WAY      |
| Vehicles Only             | Unknown         | PMX_10133 | Property Damage Only               | PDO                   |               | 8:30:00 AM        | 9:00:00 AM     | 7/28/2020 8:30   | 0 Vehicle Only | GREG ST & ROCK BLVD          |
| Vehicles Only             | Possible Injury | PMX_10198 | Possible/Minor Injury              | <Null>                |               | 8:07:00 AM        | 8:00:00 AM     | 8/1/2020 8:07    | 0 Vehicle Only | 1ST & ROCK BLVD              |
| Vehicles Only             | Unknown         | PMX_10495 | Property Damage Only               | PDO                   |               | 4:00:00 PM        | 4:00:00 PM     | 8/19/2020 16:00  | 0 Vehicle Only | ROCK BLVD & SR648            |
| Vehicles Only             | Unknown         | PMX_10510 | Property Damage Only               | PDO                   |               | 1:48:00 PM        | 2:00:00 PM     | 8/20/2020 13:48  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_10620 | Property Damage Only               | PDO                   |               | 9:55:00 PM        | 10:00:00 PM    | 8/21/2020 21:55  | 0 Vehicle Only | ROCK BLVD & SBAGIA WAY       |
| Vehicles Only             | Unknown         | PMX_10580 | Property Damage Only               | PDO                   |               | 7:42:00 PM        | 8:00:00 PM     | 8/22/2020 19:42  | 0 Vehicle Only | HYMER AVE & ROCK BLVD        |
| Vehicles Only             | Unknown         | PMX_10698 | Property Damage Only               | PDO                   |               | 10:39:00 AM       | 11:00:00 AM    | 9/2/2020 10:39   | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Minor Injury    | PMX_10690 | Possible/Minor Injury              | <Null>                |               | 12:01:00 AM       | 12:00:00 AM    | 9/5/2020 0:01    | 0 Vehicle Only | IR80W TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_10982 | Property Damage Only               | PDO                   |               | 1:37:00 PM        | 2:00:00 PM     | 9/19/2020 13:37  | 0 Vehicle Only | ROCK BLVD & SBAGIA WAY       |
| Vehicles Only             | Minor Injury    | PMX_11269 | Possible/Minor Injury              | <Null>                |               | 11:05:00 PM       | 11:00:00 PM    | 9/25/2020 23:05  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_11221 | Property Damage Only               | PDO                   |               | 10:05:00 PM       | 10:00:00 PM    | 9/26/2020 22:05  | 0 Vehicle Only | PITTMAN AVE & S ROCK BLVD    |
| Vehicles Only             | Unknown         | PMX_11170 | Property Damage Only               | PDO                   |               | 7:06:00 PM        | 7:00:00 PM     | 9/30/2020 19:06  | 0 Vehicle Only | COMMERCE ST & ROCK BLVD      |
| Vehicles Only             | Unknown         | PMX_11323 | Property Damage Only               | PDO                   |               | 1:53:00 PM        | 2:00:00 PM     | 10/9/2020 13:53  | 0 Vehicle Only | HYMER AVE & SR668            |
| Vehicles Only             | Possible Injury | PMX_11346 | Possible/Minor Injury              | <Null>                |               | 9:52:00 PM        | 10:00:00 PM    | 10/12/2020 21:52 | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_11442 | Property Damage Only               | PDO                   |               | 5:22:00 PM        | 5:00:00 PM     | 10/14/2020 17:22 | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668 |
| Vehicles Only             | Unknown         | PMX_11510 | Property Damage Only               | PDO                   |               | 6:40:00 AM        | 7:00:00 AM     | 10/16/2020 6:40  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_11513 | Property Damage Only               | PDO                   |               | 7:43:00 PM        | 8:00:00 PM     | 10/18/2020 19:43 | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Minor Injury    | PMX_11710 | Possible/Minor Injury              | <Null>                |               | 2:53:00 PM        | 3:00:00 PM     | 10/23/2020 14:53 | 0 Vehicle Only | FREEMONT BLVD & S ROCK BLVD  |
| Vehicles Only             | Unknown         | PMX_11664 | Property Damage Only               | PDO                   |               | 12:20:00 PM       | 12:00:00 PM    | 10/28/2020 12:20 | 0 Vehicle Only | PITTMAN AVE & S ROCK BLVD    |
| Involved Bicyclist or Ped | Possible Injury | PMX_11868 | Possible/Minor Injury (Pedestrian) | <Null>                |               | 7:46:00 AM        | 8:00:00 AM     | 10/31/2020 7:46  | 0 Pedestrian   | COMMERCE ST & ROCK BLVD      |
| Vehicles Only             | Possible Injury | PMX_11809 | Possible/Minor Injury              | <Null>                |               | 8:34:00 PM        | 9:00:00 PM     | 11/2/2020 20:34  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_11819 | Property Damage Only               | PDO                   |               | 5:18:00 PM        | 5:00:00 PM     | 11/3/2020 17:18  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_11929 | Property Damage Only               | PDO                   |               | 6:00:00 PM        | 6:00:00 PM     | 11/13/2020 18:00 | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_12116 | Property Damage Only               | PDO                   |               | 5:44:00 PM        | 6:00:00 PM     | 11/18/2020 17:44 | 0 Vehicle Only | HYMER AVE & S ROCK BLVD      |
| Vehicles Only             | Unknown         | PMX_12180 | Property Damage Only               | PDO                   |               | 2:44:00 PM        | 3:00:00 PM     | 11/19/2020 14:44 | 0 Vehicle Only | PITTMAN AVE & S ROCK BLVD    |
| Vehicles Only             | Unknown         | PMX_12186 | Property Damage Only               | PDO                   |               | 12:15:00 PM       | 12:00:00 PM    | 11/20/2020 12:15 | 0 Vehicle Only | GREG ST & S ROCK BLVD        |
| Vehicles Only             | Unknown         | PMX_12081 | Property Damage Only               | PDO                   |               | 5:10:00 PM        | 5:00:00 PM     | 11/21/2020 17:10 | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | Unknown         | PMX_12086 | Property Damage Only               | PDO                   |               | 2:46:00 AM        | 3:00:00 AM     | 11/23/2020 2:46  | 0 Vehicle Only | GREG ST & S ROCK BLVD        |
| Vehicles Only             | Unknown         | PMX_12335 | Property Damage Only               | PDO                   |               | 3:01:00 PM        | 3:00:00 PM     | 12/4/2020 15:01  | 0 Vehicle Only | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | Unknown         | PMX_12226 | Property Damage Only               | PDO                   |               | 4:05:00 AM        | 4:00:00 AM     | 12/4/2020 4:05   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Serious Injury  | PMX_12241 | Serious Injury                     | <Null>                |               | 12:14:00 PM       | 12:00:00 PM    | 12/6/2020 12:14  | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | Possible Injury | PMX_12492 | Possible/Minor Injury              | <Null>                |               | 3:51:00 PM        | 4:00:00 PM     | 12/9/2020 15:51  | 0 Vehicle Only | GREG ST & S ROCK BLVD        |
| Vehicles Only             | Possible Injury | PMX_12475 | Possible/Minor Injury              | <Null>                |               | 8:38:00 PM        | 9:00:00 PM     | 12/10/2020 20:38 | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD     |
| Vehicles Only             | Possible Injury | PMX_12447 | Possible/Minor Injury              | <Null>                |               | 11:30:00 AM       | 12:00:00 PM    | 12/11/2020 11:30 | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Unknown         | PMX_12359 | Property Damage Only               | PDO                   |               | 12:29:00 PM       | 12:00:00 PM    | 12/16/2020 12:29 | 0 Vehicle Only | PLYMOUTH WAY & ROCK BLVD     |
| Vehicles Only             | Possible Injury | PMX_18078 | Possible/Minor Injury              | Possible/Minor Injury |               | 6:07:00 PM        | 6:00:00 PM     | 12/29/2020 18:07 | 0 Vehicle Only | OTHER & OTHER                |
| Vehicles Only             | No Injury       | PMX_34265 | Property Damage Only               | PDO                   |               | 2:37:00 PM        | 3:00:00 PM     | 1/5/2021 14:37   | 0 Vehicle Only | OTHER & OTHER                |
| Vehicles Only             | No Injury       | PMX_34375 | Property Damage Only               | PDO                   |               | 1:00:00 PM        | 1:00:00 PM     | 1/8/2021 13:00   | 0 Vehicle Only | ROCK BLVD & SR659            |
| Vehicles Only             | No Injury       | PMX_34496 | Property Damage Only               | PDO                   |               | 10:38:00 AM       | 11:00:00 AM    | 1/16/2021 10:38  | 0 Vehicle Only | PRATER WAY & ROCK BLVD       |
| Vehicles Only             | No Injury       | PMX_34497 | Property Damage Only               | PDO                   |               | 1:43:00 PM        | 2:00:00 PM     | 1/19/2021 13:43  | 0 Vehicle Only | OTHER & OTHER                |
| Vehicles Only             | No Injury       | PMX_34411 | Property Damage Only               | PDO                   |               | 6:50:00 AM        | 7:00:00 AM     | 1/19/2021 6:50   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | Minor Injury    | PMX_34400 | Possible/Minor Injury              | Possible/Minor Injury |               | 9:34:00 PM        | 10:00:00 PM    | 1/20/2021 21:34  | 0 Vehicle Only | GAULT WAY & ROCK BLVD        |
| Vehicles Only             | Possible Injury | PMX_34650 | Possible/Minor Injury              | Possible/Minor Injury |               | 3:13:00 PM        | 3:00:00 PM     | 1/28/2021 15:13  | 0 Vehicle Only | GLENDAL AVE & S ROCK BL      |
| Vehicles Only             | Possible Injury | PMX_34857 | Possible/Minor Injury              | Possible/Minor Injury |               | 9:15:00 AM        | 9:00:00 AM     | 2/8/2021 9:15    | 0 Vehicle Only | E GLENDAL AVE & ROCK BL      |
| Vehicles Only             | No Injury       | PMX_34975 | Property Damage Only               | PDO                   |               | 10:29:00 AM       | 10:00:00 AM    | 2/10/2021 10:29  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE    |
| Vehicles Only             | No Injury       | PMX_34890 | Property Damage Only               | PDO                   |               | 1:07:00 PM        | 1:00:00 PM     | 2/15/2021 13:07  | 0 Vehicle Only | F ST & ROCK BLVD             |
| Vehicles Only             | Unknown         | PMX_34987 | Property Damage Only               | PDO                   |               | 10:15:00 AM       | 10:00:00 AM    | 2/19/2021 10:15  | 0 Vehicle Only | GLENDAL AVE & S ROCK BLVD    |
| Vehicles Only             | Unknown         | PMX_35138 | Property Damage Only               | PDO                   |               | 8:01:00 AM        | 8:00:00 AM     | 2/20/2021 8:01   | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD       |
| Vehicles Only             | No Injury       | PMX_35041 | Property Damage Only               | PDO                   |               | 9:24:00 PM        | 9:00:00 PM     | 2/21/2021 21:24  | 0 Vehicle Only | OTHER & OTHER                |

| PMX AT Crashes           | PMX InjuryType  | PMX UI    | WebmapSymbology                    | KTWL Study Corridors               | CrashLocation | PMX NormalizeTime | PMX Timeframes | PMX DayTime      | UserType       | PMX Intersection Location           |
|--------------------------|-----------------|-----------|------------------------------------|------------------------------------|---------------|-------------------|----------------|------------------|----------------|-------------------------------------|
| Vehicles Only            | No Injury       | PMX_35230 | Property Damage Only               | PDO                                |               | 1:06:00 PM        | 1:00:00 PM     | 3/2/2021 13:06   | 0 Vehicle Only | GREG ST & ROCK BLVD                 |
| Vehicles Only            | No Injury       | PMX_35413 | Property Damage Only               | PDO                                |               | 4:32:00 PM        | 5:00:00 PM     | 3/11/2021 16:32  | 0 Vehicle Only | PRATER WAY & ROCK BLVD              |
| Vehicles Only            | Possible Injury | PMX_35339 | Possible/Minor Injury              | Possible/Minor Injury              |               | 10:03:00 PM       | 10:00:00 PM    | 3/16/2021 22:03  | 0 Vehicle Only | G & ROCK BLVD                       |
| Vehicles Only            | Unknown         | PMX_35648 | Property Damage Only               | PDO                                |               | 7:45:00 AM        | 8:00:00 AM     | 3/29/2021 7:45   | 0 Vehicle Only | HYMER AVE & ROCK BLVD               |
| Vehicles Only            | Possible Injury | PMX_32678 | Possible/Minor Injury              | Possible/Minor Injury              |               | 5:52:00 PM        | 6:00:00 PM     | 4/1/2021 17:52   | 0 Vehicle Only | IR80 E TO S ROCK BLVD & ROCK BLVD   |
| Vehicles Only            | No Injury       | PMX_32540 | Property Damage Only               | PDO                                |               | 12:11:00 PM       | 12:00:00 PM    | 4/9/2021 12:11   | 0 Vehicle Only | COMMERCE ST & ROCK BLVD             |
| Vehicles Only            | Possible Injury | PMX_32558 | Possible/Minor Injury              | Possible/Minor Injury              |               | 3:21:00 PM        | 3:00:00 PM     | 4/10/2021 15:21  | 0 Vehicle Only | PRATER WAY & ROCK BLVD              |
| Vehicles Only            | No Injury       | PMX_32510 | Property Damage Only               | PDO                                |               | 10:39:00 AM       | 11:00:00 AM    | 4/11/2021 10:39  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE           |
| Vehicles Only            | Serious Injury  | PMX_32800 | Serious Injury                     | Serious Injury                     |               | 6:55:00 AM        | 7:00:00 AM     | 4/20/2021 6:55   | 0 Vehicle Only | ROCK BLVD & SHABER AVE              |
| Vehicles Only            | Unknown         | PMX_32887 | Property Damage Only               | PDO                                |               | 8:43:00 PM        | 9:00:00 PM     | 4/23/2021 20:43  | 0 Vehicle Only | HYMER AVE & ROCK BLVD               |
| Vehicles Only            | No Injury       | PMX_32986 | Property Damage Only               | PDO                                |               | 3:28:00 AM        | 3:00:00 AM     | 5/1/2021 3:28    | 0 Vehicle Only | ROCK BL TO IR80 W & ROCK BLVD       |
| Vehicles Only            | No Injury       | PMX_32945 | Property Damage Only               | PDO                                |               | 3:24:00 PM        | 3:00:00 PM     | 5/4/2021 15:24   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE           |
| Vehicles Only            | Possible Injury | PMX_33150 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:01:00 PM        | 9:00:00 PM     | 5/10/2021 21:01  | 0 Vehicle Only | ROCK BL TO IR80 W & ROCK BLVD       |
| Vehicles Only            | Minor Injury    | PMX_33338 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:53:00 AM        | 7:00:00 AM     | 5/11/2021 6:53   | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | No Injury       | PMX_33195 | Property Damage Only               | PDO                                |               | 5:17:00 PM        | 5:00:00 PM     | 5/17/2021 17:17  | 0 Vehicle Only | HYMER AVE & S ROCK BLVD             |
| Vehicles Only            | Unknown         | PMX_37349 | Property Damage Only               | PDO                                |               | 4:25:00 PM        | 4:00:00 PM     | 5/18/2021 16:25  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | Possible Injury | PMX_33352 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:57:00 PM        | 7:00:00 PM     | 5/19/2021 18:57  | 0 Vehicle Only | GAULT WY & ROCK BLVD                |
| Vehicles Only            | Possible Injury | PMX_33407 | Possible/Minor Injury              | Possible/Minor Injury              |               | 11:55:00 AM       | 12:00:00 PM    | 5/19/2021 11:55  | 0 Vehicle Only | OTHER & ROCK BL                     |
| Vehicles Only            | No Injury       | PMX_33605 | Property Damage Only               | PDO                                |               | 11:20:00 AM       | 11:00:00 AM    | 5/28/2021 11:20  | 0 Vehicle Only | F ST & ROCK BLVD                    |
| Vehicles Only            | No Injury       | PMX_33542 | Property Damage Only               | PDO                                |               | 4:58:00 AM        | 5:00:00 AM     | 5/29/2021 4:58   | 0 Vehicle Only | D STREET & ROCK BLVD                |
| Vehicles Only            | No Injury       | PMX_33580 | Property Damage Only               | PDO                                |               | 10:55:00 PM       | 11:00:00 PM    | 6/1/2021 22:55   | 0 Vehicle Only | OTHER & ROCK BLVD                   |
| Vehicles Only            | Possible Injury | PMX_33784 | Possible/Minor Injury              | Possible/Minor Injury              |               | 1:22:00 PM        | 1:00:00 PM     | 6/7/2021 13:22   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE           |
| Vehicles Only            | No Injury       | PMX_33717 | Property Damage Only               | PDO                                |               | 12:01:00 PM       | 12:00:00 PM    | 6/9/2021 12:01   | 0 Vehicle Only | GLENDALE AVE & ROCK BLVD            |
| Vehicles Only            | Possible Injury | PMX_33855 | Possible/Minor Injury              | Possible/Minor Injury              |               | 7:57:00 PM        | 8:00:00 PM     | 6/17/2021 19:57  | 0 Vehicle Only | GREG ST & S ROCK BL                 |
| Involved Bicyclist or Pe | Fatal           | PMX_34196 | Fatal (Bicyclist)                  | Fatal (Bicyclist)                  |               | 8:46:00 AM        | 9:00:00 AM     | 6/30/2021 8:46   | 0 Bicyclist    | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | Minor Injury    | PMX_34159 | Possible/Minor Injury              | Possible/Minor Injury              |               | 3:40:00 PM        | 4:00:00 PM     | 6/30/2021 15:40  | 0 Vehicle Only | PITTMAN AVE & S ROCK BLVD           |
| Vehicles Only            | Possible Injury | PMX_37319 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:26:00 AM        | 9:00:00 AM     | 7/2/2021 9:26    | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD            |
| Vehicles Only            | Unknown         | PMX_31772 | Property Damage Only               | PDO                                |               | 10:32:00 PM       | 11:00:00 PM    | 7/3/2021 22:32   | 0 Vehicle Only | IR80 E TO S ROCK BLVD & ROCK BLVD   |
| Vehicles Only            | No Injury       | PMX_31920 | Property Damage Only               | PDO                                |               | 4:24:00 PM        | 4:00:00 PM     | 7/7/2021 16:24   | 0 Vehicle Only | GREG ST & ROCK BLVD                 |
| Vehicles Only            | No Injury       | PMX_32148 | Property Damage Only               | PDO                                |               | 5:43:00 PM        | 6:00:00 PM     | 7/27/2021 17:43  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AV            |
| Vehicles Only            | Possible Injury | PMX_37265 | Possible/Minor Injury              | Possible/Minor Injury              |               | 12:56:00 AM       | 1:00:00 AM     | 8/21/2021 0:56   | 0 Vehicle Only | N MCCARRAN BLVD & ROCK BLVD         |
| Vehicles Only            | Serious Injury  | PMX_32273 | Serious Injury                     | Serious Injury                     |               | 12:07:00 AM       | 12:00:00 AM    | 8/21/2021 0:07   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE           |
| Vehicles Only            | Unknown         | PMX_32241 | Property Damage Only               | PDO                                |               | 11:08:00 PM       | 11:00:00 PM    | 8/28/2021 23:08  | 0 Vehicle Only | HYMER AVE & S ROCK BLVD             |
| Vehicles Only            | Unknown         | PMX_32386 | Property Damage Only               | PDO                                |               | 3:50:00 PM        | 4:00:00 PM     | 9/3/2021 15:50   | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668        |
| Vehicles Only            | No Injury       | PMX_32229 | Property Damage Only               | PDO                                |               | 6:09:00 PM        | 6:00:00 PM     | 9/7/2021 18:09   | 0 Vehicle Only | HYMER AVE & SR668                   |
| Vehicles Only            | Serious Injury  | PMX_32291 | Serious Injury                     | Serious Injury                     |               | 6:23:00 AM        | 6:00:00 AM     | 9/24/2021 6:23   | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | Unknown         | PMX_31491 | Property Damage Only               | PDO                                |               | 3:19:00 AM        | 3:00:00 AM     | 10/14/2021 3:19  | 0 Vehicle Only | IR80 E & ROCK BLVD                  |
| Vehicles Only            | Possible Injury | PMX_31454 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:02:00 AM        | 9:00:00 AM     | 10/20/2021 9:02  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668        |
| Vehicles Only            | No Injury       | PMX_31566 | Property Damage Only               | PDO                                |               | 6:44:00 AM        | 7:00:00 AM     | 10/30/2021 6:44  | 0 Vehicle Only | C ST & ROCK BLVD                    |
| Vehicles Only            | Possible Injury | PMX_31603 | Possible/Minor Injury              | Possible/Minor Injury              |               | 8:34:00 AM        | 9:00:00 AM     | 11/13/2021 8:34  | 0 Vehicle Only | MCCARRAN BLVD & S ROCK BLVD         |
| Vehicles Only            | No Injury       | PMX_31627 | Property Damage Only               | PDO                                |               | 8:08:00 AM        | 8:00:00 AM     | 11/19/2021 8:08  | 0 Vehicle Only | IR80 E & ROCK BLVD                  |
| Vehicles Only            | Possible Injury | PMX_31723 | Possible/Minor Injury              | Possible/Minor Injury              |               | 11:34:00 AM       | 12:00:00 PM    | 11/20/2021 11:34 | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD            |
| Vehicles Only            | No Injury       | PMX_31886 | Property Damage Only               | PDO                                |               | 5:03:00 PM        | 5:00:00 PM     | 11/23/2021 17:03 | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | No Injury       | PMX_31685 | Property Damage Only               | PDO                                |               | 8:04:00 AM        | 8:00:00 AM     | 11/27/2021 8:04  | 0 Vehicle Only | OXFORD AVE & ROCK BLVD              |
| Vehicles Only            | Minor Injury    | PMX_31889 | Possible/Minor Injury              | Possible/Minor Injury              |               | 3:45:00 AM        | 4:00:00 AM     | 12/1/2021 3:45   | 0 Vehicle Only | ROCK BLVD & RUSSELL WAY             |
| Vehicles Only            | No Injury       | PMX_31978 | Property Damage Only               | PDO                                |               | 9:45:00 AM        | 10:00:00 AM    | 12/5/2021 9:45   | 0 Vehicle Only | GREG ST & S ROCK BLVD               |
| Vehicles Only            | Minor Injury    | PMX_31844 | Possible/Minor Injury              | Possible/Minor Injury              |               | 11:36:00 AM       | 12:00:00 PM    | 12/9/2021 11:36  | 0 Vehicle Only | C ST & ROCK BLVD                    |
| Vehicles Only            | No Injury       | PMX_31908 | Property Damage Only               | PDO                                |               | 3:47:00 PM        | 4:00:00 PM     | 12/9/2021 15:47  | 0 Vehicle Only | GREG ST & S ROCK BLVD               |
| Vehicles Only            | No Injury       | PMX_31934 | Property Damage Only               | PDO                                |               | 9:06:00 AM        | 9:00:00 AM     | 12/13/2021 9:06  | 0 Vehicle Only | ROCK BLVD & ZEPHYR WAY              |
| Involved Bicyclist or Pe | Minor Injury    | PMX_26780 | Possible/Minor Injury (Pedestrian) | Possible/Minor Injury (Pedestrian) |               | 7:32:00 PM        | 8:00:00 PM     | 1/2/2022 19:32   | 0 Pedestrian   | ROCK BLVD & VICTORIAN AVE           |
| Vehicles Only            | Possible Injury | PMX_26752 | Possible/Minor Injury              | Possible/Minor Injury              |               | 7:26:00 AM        | 7:00:00 AM     | 1/4/2022 7:26    | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | No Injury       | PMX_26807 | Property Damage Only               | PDO                                |               | 1:19:00 PM        | 1:00:00 PM     | 1/7/2022 13:19   | 0 Vehicle Only | HYMER AVE & SR668                   |
| Vehicles Only            | No Injury       | PMX_26891 | Property Damage Only               | PDO                                |               | 5:24:00 PM        | 5:00:00 PM     | 1/15/2022 17:24  | 0 Vehicle Only | SR668 & VICTORIAN AVE               |
| Vehicles Only            | No Injury       | PMX_37635 | Property Damage Only               | PDO                                |               | 8:09:00 AM        | 8:00:00 AM     | 1/19/2022 8:09   | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668        |
| Vehicles Only            | No Injury       | PMX_26742 | Property Damage Only               | PDO                                |               | 6:49:00 AM        | 7:00:00 AM     | 1/19/2022 6:49   | 0 Vehicle Only | SR668 & VICTORIAN AVE               |
| Vehicles Only            | Minor Injury    | PMX_26868 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:10:00 PM        | 9:00:00 PM     | 1/21/2022 21:10  | 0 Vehicle Only | GLENDALE AVE & ROCK BLVD            |
| Vehicles Only            | No Injury       | PMX_26874 | Property Damage Only               | PDO                                |               | 8:25:00 AM        | 8:00:00 AM     | 1/24/2022 8:25   | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | Unknown         | PMX_27054 | Property Damage Only               | PDO                                |               | 4:02:00 PM        | 4:00:00 PM     | 2/1/2022 16:02   | 0 Vehicle Only | ROCK BLVD & UPTON WAY               |
| Vehicles Only            | Possible Injury | PMX_27023 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:40:00 AM        | 7:00:00 AM     | 2/2/2022 6:40    | 0 Vehicle Only | PITTMAN AVE & S ROCK BLVD           |
| Vehicles Only            | No Injury       | PMX_27006 | Property Damage Only               | PDO                                |               | 7:28:00 PM        | 7:00:00 PM     | 2/14/2022 19:28  | 0 Vehicle Only | HYMER AVE & SR668                   |
| Vehicles Only            | Possible Injury | PMX_27153 | Possible/Minor Injury              | Possible/Minor Injury              |               | 4:22:00 PM        | 4:00:00 PM     | 2/14/2022 16:22  | 0 Vehicle Only | ROCK BLVD & UPTON WAY               |
| Vehicles Only            | No Injury       | PMX_27201 | Property Damage Only               | PDO                                |               | 8:13:00 AM        | 8:00:00 AM     | 2/23/2022 8:13   | 0 Vehicle Only | ROCK BLVD & RUSSELL WAY             |
| Vehicles Only            | No Injury       | PMX_27292 | Property Damage Only               | PDO                                |               | 8:54:00 AM        | 9:00:00 AM     | 3/4/2022 8:54    | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD            |
| Vehicles Only            | Minor Injury    | PMX_27288 | Possible/Minor Injury              | Possible/Minor Injury              |               | 12:22:00 PM       | 12:00:00 PM    | 3/10/2022 12:22  | 0 Vehicle Only | GREG ST & S ROCK BLVD               |
| Vehicles Only            | No Injury       | PMX_27357 | Property Damage Only               | PDO                                |               | 4:48:00 PM        | 5:00:00 PM     | 3/14/2022 16:48  | 0 Vehicle Only | GREG ST & S ROCK BLVD               |
| Vehicles Only            | No Injury       | PMX_27539 | Property Damage Only               | PDO                                |               | 8:37:00 AM        | 9:00:00 AM     | 3/21/2022 8:37   | 0 Vehicle Only | S ROCK BLVD & SR648                 |
| Vehicles Only            | No Injury       | PMX_27475 | Property Damage Only               | PDO                                |               | 2:12:00 PM        | 2:00:00 PM     | 3/22/2022 14:12  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | No Injury       | PMX_27451 | Property Damage Only               | PDO                                |               | 6:47:00 PM        | 7:00:00 PM     | 3/23/2022 18:47  | 0 Vehicle Only | ROCK BLVD & SR659                   |
| Vehicles Only            | No Injury       | PMX_27540 | Property Damage Only               | PDO                                |               | 9:45:00 AM        | 10:00:00 AM    | 3/28/2022 9:45   | 0 Vehicle Only | PRATER WAY & SR668                  |
| Vehicles Only            | Possible Injury | PMX_30530 | Possible/Minor Injury              | Possible/Minor Injury              |               | 10:38:00 AM       | 11:00:00 AM    | 4/1/2022 10:38   | 0 Vehicle Only | 1ST & ROCK BLVD                     |
| Vehicles Only            | No Injury       | PMX_30503 | Property Damage Only               | PDO                                |               | 4:24:00 PM        | 4:00:00 PM     | 4/3/2022 16:24   | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | No Injury       | PMX_30504 | Property Damage Only               | PDO                                |               | 10:47:00 AM       | 11:00:00 AM    | 4/11/2022 10:47  | 0 Vehicle Only | MCCARRAN BLVD & ROCK BLVD           |
| Vehicles Only            | No Injury       | PMX_30633 | Property Damage Only               | PDO                                |               | 9:47:00 AM        | 10:00:00 AM    | 4/14/2022 9:47   | 0 Vehicle Only | GAULT WAY & ROCK BLVD               |
| Vehicles Only            | Possible Injury | PMX_30713 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:04:00 PM        | 6:00:00 PM     | 4/25/2022 18:04  | 0 Vehicle Only | SR668 & SR668 TO IR80W INT17        |
| Vehicles Only            | No Injury       | PMX_30708 | Property Damage Only               | PDO                                |               | 1:45:00 PM        | 2:00:00 PM     | 4/26/2022 13:45  | 0 Vehicle Only | GREG ST & S ROCK BLVD               |
| Vehicles Only            | Minor Injury    | PMX_30695 | Possible/Minor Injury              | Possible/Minor Injury              |               | 7:17:00 AM        | 7:00:00 AM     | 4/27/2022 7:17   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE           |
| Vehicles Only            | Possible Injury | PMX_30834 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:41:00 PM        | 10:00:00 PM    | 4/30/2022 21:41  | 0 Vehicle Only | HYMER AVE & S ROCK BLVD             |
| Vehicles Only            | No Injury       | PMX_38262 | Property Damage Only               | PDO                                |               | 7:20:00 AM        | 7:00:00 AM     | 5/3/2022 7:20    | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668        |
| Vehicles Only            | Possible Injury | PMX_30959 | Possible/Minor Injury              | Possible/Minor Injury              |               | 10:26:00 PM       | 10:00:00 PM    | 5/18/2022 22:26  | 0 Vehicle Only | S ROCK BLVD & SR648                 |
| Vehicles Only            | Possible Injury | PMX_30921 | Possible/Minor Injury              | Possible/Minor Injury              |               | 1:27:00 PM        | 1:00:00 PM     | 5/21/2022 13:27  | 0 Vehicle Only | H ST & ROCK BLVD                    |
| Vehicles Only            | No Injury       | PMX_30909 | Property Damage Only               | PDO                                |               | 10:04:00 AM       | 10:00:00 AM    | 5/21/2022 10:04  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD              |
| Vehicles Only            | Possible Injury | PMX_38316 | Possible/Minor Injury              | Possible/Minor Injury              |               | 2:28:00 PM        | 2:00:00 PM     | 5/23/2022 14:28  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668        |
| Vehicles Only            | Possible Injury | PMX_30907 | Possible/Minor Injury              | Possible/Minor Injury              |               | 2:42:00 PM        | 3:00:00 PM     | 5/24/2022 14:42  | 0 Vehicle Only | S ROCK BLVD & SHABER AVE            |
| Vehicles Only            | No Injury       | PMX_38318 | Property Damage Only               | PDO                                |               | 5:16:00 PM        | 5:00:00 PM     | 5/25/2022 17:16  | 0 Vehicle Only | ROCK BLVD & ROCK BLVD TO IR80E RAMP |
| Vehicles Only            | No Injury       | PMX_31065 | Property Damage Only               | PDO                                |               | 3:30:00 PM        | 4:00:00 PM     | 5/26/2022 15:30  | 0 Vehicle Only | PRATER WAY & ROCK BLVD              |
| Vehicles Only            | No Injury       | PMX_31035 | Property Damage Only               | PDO                                |               | 3:20:00 PM        | 3:00:00 PM     | 5/27/2022 15:20  | 0 Vehicle Only | HYMER AVE & SR668                   |
| Vehicles Only            | No Injury       | PMX_31139 | Property Damage Only               | PDO                                |               | 9:46:00 PM        | 10:00:00 PM    | 5/27/2022 21:46  | 0 Vehicle Only | ROCK BLVD & VANCE WAY               |
| Vehicles Only            | No Injury       | PMX_31170 | Property Damage Only               | PDO                                |               | 2:10:00 AM        | 2:00:00 AM     | 5/28/2022 2:10   | 0 Vehicle Only | S ROCK BLVD & SR648                 |
| Vehicles Only            | No Injury       | PMX_31072 | Property Damage Only               | PDO                                |               | 8:00:00 AM        | 8:00:00 AM     | 5/31/2022 8:00   | 0 Vehicle Only | HYMER AVE & SR668                   |
| Vehicles Only            | Possible Injury | PMX_31124 | Possible/Minor Injury              | Possible/Minor Injury              |               | 2:55:00 PM        | 3:00:00 PM     | 6/3/2022 14:55   | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD            |
| Vehicles Only            | No Injury       | PMX_31042 | Property Damage Only               | PDO                                |               | 11:10:00 AM       | 11:00:00 AM    | 6/3/2022 11:10   | 0 Vehicle Only | S ROCK BLVD & SR648                 |
| Vehicles Only            | Fatal           | PMX_31219 | Fatal                              | Fatal                              |               | 12:27:00 PM       | 12:00:00 PM    | 6/16/2022 12:27  | 0 Vehicle Only | GLENDALE AVE & ROCK BLVD            |
| Vehicles Only            | Possible Injury | PMX_31315 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:26:00 PM        | 6:00:00 PM     | 6/18/2022 18:26  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD            |
| Vehicles Only            | No Injury       | PMX_31207 | Property Damage Only               | PDO                                |               | 2:53:00 PM        | 3:00:00 PM     | 6/21/2022 14:53  | 0 Vehicle Only | PRATER WAY & ROCK BLVD              |



| PMX AT Crashes            | PMX InjuryType  | PMX UI    | WebmapSymbology                    | KTWL Study Corridors               | CrashLocation | PMX NormalizeTime | PMX Timeframes | PMX DayTime      | UserType       | PMX Intersection Location            |
|---------------------------|-----------------|-----------|------------------------------------|------------------------------------|---------------|-------------------|----------------|------------------|----------------|--------------------------------------|
| Vehicles Only             | Minor Injury    | PMX_27685 | Possible/Minor Injury              | Possible/Minor Injury              |               | 12:13:00 PM       | 12:00:00 PM    | 7/3/2022 12:13   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Vehicles Only             | Possible Injury | PMX_27781 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:59:00 AM        | 10:00:00 AM    | 7/8/2022 9:59    | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD               |
| Vehicles Only             | No Injury       | PMX_27696 | Property Damage Only               | PDO                                |               | 9:46:00 AM        | 10:00:00 AM    | 7/10/2022 9:46   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Vehicles Only             | Possible Injury | PMX_27681 | Possible/Minor Injury              | Possible/Minor Injury              |               | 3:48:00 PM        | 4:00:00 PM     | 7/13/2022 15:48  | 0 Vehicle Only | SR668 & SR668 TO IR80W INT17         |
| Vehicles Only             | Possible Injury | PMX_27759 | Possible/Minor Injury              | Possible/Minor Injury              |               | 4:32:00 PM        | 5:00:00 PM     | 7/19/2022 16:32  | 0 Vehicle Only | GREG ST & S ROCK BLVD                |
| Vehicles Only             | No Injury       | PMX_28057 | Property Damage Only               | PDO                                |               | 8:36:00 PM        | 9:00:00 PM     | 8/2/2022 20:36   | 0 Vehicle Only | PRATER WAY & SR668                   |
| Vehicles Only             | No Injury       | PMX_27992 | Property Damage Only               | PDO                                |               | 11:28:00 PM       | 11:00:00 PM    | 8/3/2022 23:28   | 0 Vehicle Only | SR668 & VICTORIAN AVE                |
| Vehicles Only             | Minor Injury    | PMX_28050 | Possible/Minor Injury              | Possible/Minor Injury              |               | 8:08:00 AM        | 8:00:00 AM     | 8/9/2022 8:08    | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Vehicles Only             | Possible Injury | PMX_28202 | Possible/Minor Injury              | Possible/Minor Injury              |               | 4:34:00 PM        | 5:00:00 PM     | 8/13/2022 16:34  | 0 Vehicle Only | SR668 & VICTORIAN AVE                |
| Vehicles Only             | Minor Injury    | PMX_28166 | Possible/Minor Injury              | Possible/Minor Injury              |               | 12:50:00 PM       | 1:00:00 PM     | 8/16/2022 12:50  | 0 Vehicle Only | S ROCK BLVD & SHABER AVE             |
| Vehicles Only             | Possible Injury | PMX_28311 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:36:00 AM        | 10:00:00 AM    | 8/23/2022 9:36   | 0 Vehicle Only | GLENDALE AVE & ROCK BLVD             |
| Involved Bicyclist or Ped | Minor Injury    | PMX_28405 | Possible/Minor Injury (Pedestrian) | Possible/Minor Injury (Pedestrian) |               | 6:10:00 PM        | 6:00:00 PM     | 8/26/2022 18:10  | 0 Pedestrian   | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Serious Injury  | PMX_28468 | Serious Injury                     | Serious Injury                     |               | 4:22:00 PM        | 4:00:00 PM     | 9/3/2022 16:22   | 0 Vehicle Only | ROCK BLVD & SR648                    |
| Vehicles Only             | Possible Injury | PMX_28856 | Possible/Minor Injury              | Possible/Minor Injury              |               | 5:45:00 PM        | 6:00:00 PM     | 9/13/2022 17:45  | 0 Vehicle Only | ROCK BLVD & SR648                    |
| Vehicles Only             | No Injury       | PMX_28693 | Property Damage Only               | PDO                                |               | 2:53:00 PM        | 3:00:00 PM     | 9/13/2022 14:53  | 0 Vehicle Only | ROCK BLVD & SR659                    |
| Vehicles Only             | Possible Injury | PMX_28815 | Possible/Minor Injury              | Possible/Minor Injury              |               | 1:09:00 PM        | 1:00:00 PM     | 9/15/2022 13:09  | 0 Vehicle Only | SR668 & VICTORIAN AVE                |
| Involved Bicyclist or Ped | No Injury       | PMX_28964 | Property Damage Only               | PDO                                |               | 2:24:00 PM        | 2:00:00 PM     | 9/21/2022 14:24  | 0 Bicyclist    | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | No Injury       | PMX_28917 | Property Damage Only               | PDO                                |               | 12:00:00 PM       | 12:00:00 PM    | 9/21/2022 12:00  | 0 Vehicle Only | GREG ST & S ROCK BLVD                |
| Vehicles Only             | No Injury       | PMX_28869 | Property Damage Only               | PDO                                |               | 6:40:00 AM        | 7:00:00 AM     | 9/21/2022 6:40   | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17         |
| Involved Bicyclist or Ped | Possible Injury | PMX_28883 | Possible/Minor Injury (Bicyclist)  | Possible/Minor Injury (Bicyclist)  |               | 6:58:00 AM        | 7:00:00 AM     | 9/22/2022 6:58   | 0 Bicyclist    | 15TH ST & ROCK BLVD                  |
| Vehicles Only             | Possible Injury | PMX_29764 | Possible/Minor Injury              | Possible/Minor Injury              |               | 3:03:00 PM        | 3:00:00 PM     | 9/24/2022 15:03  | 0 Vehicle Only | COMMERCE ST & ROCK BLVD              |
| Vehicles Only             | No Injury       | PMX_28979 | Property Damage Only               | PDO                                |               | 5:23:00 PM        | 5:00:00 PM     | 9/27/2022 17:23  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD               |
| Vehicles Only             | Possible Injury | PMX_29127 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:41:00 AM        | 7:00:00 AM     | 9/29/2022 6:41   | 0 Vehicle Only | SR668 & SR668 TO IR80W INT17         |
| Vehicles Only             | Possible Injury | PMX_29208 | Possible/Minor Injury              | Possible/Minor Injury              |               | 5:23:00 PM        | 5:00:00 PM     | 10/5/2022 17:23  | 0 Vehicle Only | FREEPORT BLVD & S ROCK BLVD          |
| Vehicles Only             | No Injury       | PMX_29482 | Property Damage Only               | PDO                                |               | 5:50:00 PM        | 6:00:00 PM     | 10/8/2022 17:50  | 0 Vehicle Only | PRATER WAY & SR668                   |
| Vehicles Only             | No Injury       | PMX_29182 | Property Damage Only               | PDO                                |               | 9:13:00 AM        | 9:00:00 AM     | 10/10/2022 9:13  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | No Injury       | PMX_29401 | Property Damage Only               | PDO                                |               | 5:45:00 PM        | 6:00:00 PM     | 10/12/2022 17:45 | 0 Vehicle Only | 1ST & ROCK BLVD                      |
| Vehicles Only             | No Injury       | PMX_29674 | Property Damage Only               | PDO                                |               | 9:46:00 PM        | 10:00:00 PM    | 10/29/2022 21:46 | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD               |
| Vehicles Only             | Possible Injury | PMX_29593 | Possible/Minor Injury              | Possible/Minor Injury              |               | 2:22:00 PM        | 2:00:00 PM     | 11/1/2022 14:22  | 0 Vehicle Only | PRATER WAY & ROCK BLVD               |
| Involved Bicyclist or Ped | Minor Injury    | PMX_29822 | Possible/Minor Injury (Bicyclist)  | Possible/Minor Injury (Bicyclist)  |               | 9:38:00 AM        | 10:00:00 AM    | 11/7/2022 9:38   | 0 Bicyclist    | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Possible Injury | PMX_29764 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:13:00 PM        | 6:00:00 PM     | 11/7/2022 18:13  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Possible Injury | PMX_29672 | Possible/Minor Injury              | Possible/Minor Injury              |               | 11:30:00 PM       | 12:00:00 AM    | 11/11/2022 23:30 | 0 Vehicle Only | ROCK BLVD & TYLER WAY                |
| Vehicles Only             | Possible Injury | PMX_29892 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:32:00 PM        | 7:00:00 PM     | 11/14/2022 18:32 | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Involved Bicyclist or Ped | No Injury       | PMX_30035 | Property Damage Only               | PDO                                |               | 1:07:00 PM        | 1:00:00 PM     | 11/24/2022 13:07 | 0 Pedestrian   | SR668 & VICTORIAN AVE                |
| Vehicles Only             | No Injury       | PMX_29980 | Property Damage Only               | PDO                                |               | 11:30:00 PM       | 12:00:00 AM    | 11/26/2022 23:30 | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD               |
| Vehicles Only             | No Injury       | PMX_30202 | Property Damage Only               | PDO                                |               | 9:58:00 AM        | 10:00:00 AM    | 12/3/2022 9:58   | 0 Vehicle Only | SR668 & VICTORIAN AVE                |
| Vehicles Only             | Possible Injury | PMX_30225 | Possible/Minor Injury              | Possible/Minor Injury              |               | 1:00:00 PM        | 1:00:00 PM     | 12/4/2022 13:00  | 0 Vehicle Only | C ST & SR668                         |
| Vehicles Only             | No Injury       | PMX_30261 | Property Damage Only               | PDO                                |               | 3:51:00 PM        | 4:00:00 PM     | 12/8/2022 15:51  | 0 Vehicle Only | S ROCK BLVD & SR648                  |
| Vehicles Only             | Possible Injury | PMX_30289 | Possible/Minor Injury              | Possible/Minor Injury              |               | 12:48:00 PM       | 1:00:00 PM     | 12/9/2022 12:48  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | No Injury       | PMX_25817 | Property Damage Only               | PDO                                |               | 1:03:00 PM        | 1:00:00 PM     | 1/6/2023 13:03   | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17         |
| Vehicles Only             | Possible Injury | PMX_25971 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:15:00 PM        | 6:00:00 PM     | 1/12/2023 18:15  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Possible Injury | PMX_26211 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:53:00 AM        | 10:00:00 AM    | 1/24/2023 9:53   | 0 Vehicle Only | GREG ST & S ROCK BLVD                |
| Vehicles Only             | No Injury       | PMX_26116 | Property Damage Only               | PDO                                |               | 1:41:00 PM        | 2:00:00 PM     | 1/25/2023 13:41  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Possible Injury | PMX_26252 | Possible/Minor Injury              | Possible/Minor Injury              |               | 8:06:00 AM        | 8:00:00 AM     | 1/27/2023 8:06   | 0 Vehicle Only | G ST & ROCK BLVD                     |
| Vehicles Only             | No Injury       | PMX_26149 | Property Damage Only               | PDO                                |               | 7:20:00 AM        | 7:00:00 AM     | 1/28/2023 7:20   | 0 Vehicle Only | PRATER WAY & SR668                   |
| Vehicles Only             | Unknown         | PMX_26322 | Property Damage Only               | PDO                                |               | 11:21:00 AM       | 11:00:00 AM    | 1/29/2023 11:21  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Possible Injury | PMX_25980 | Possible/Minor Injury              | Possible/Minor Injury              |               | 12:23:00 PM       | 12:00:00 PM    | 1/29/2023 12:23  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD               |
| Vehicles Only             | No Injury       | PMX_26651 | Property Damage Only               | PDO                                |               | 8:54:00 PM        | 9:00:00 PM     | 2/17/2023 20:54  | 0 Vehicle Only | HYMER AVE & S ROCK BLVD              |
| Vehicles Only             | Possible Injury | PMX_26353 | Possible/Minor Injury              | Possible/Minor Injury              |               | 3:03:00 PM        | 4:00:00 PM     | 2/27/2023 15:53  | 0 Vehicle Only | GREG ST & S ROCK BLVD                |
| Vehicles Only             | No Injury       | PMX_27534 | Property Damage Only               | PDO                                |               | 6:43:00 PM        | 7:00:00 PM     | 3/2/2023 18:43   | 0 Vehicle Only | PRATER WAY & ROCK BLVD               |
| Vehicles Only             | No Injury       | PMX_30272 | Property Damage Only               | PDO                                |               | 4:45:00 AM        | 5:00:00 AM     | 3/12/2023 4:45   | 0 Vehicle Only | PRATER WAY & ROCK BLVD               |
| Vehicles Only             | Possible Injury | PMX_28104 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:25:00 AM        | 9:00:00 AM     | 3/14/2023 9:25   | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668         |
| Vehicles Only             | No Injury       | PMX_31911 | Property Damage Only               | PDO                                |               | 3:46:00 PM        | 4:00:00 PM     | 3/23/2023 15:46  | 0 Vehicle Only | SR668 & VICTORIAN AVE                |
| Vehicles Only             | No Injury       | PMX_32323 | Property Damage Only               | PDO                                |               | 4:12:00 PM        | 4:00:00 PM     | 4/12/2023 16:12  | 0 Vehicle Only | C ST & SR668                         |
| Vehicles Only             | No Injury       | PMX_32233 | Property Damage Only               | PDO                                |               | 3:43:00 PM        | 4:00:00 PM     | 4/12/2023 15:43  | 0 Vehicle Only | HYMER AVE & SR668                    |
| Vehicles Only             | Possible Injury | PMX_32384 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:32:00 PM        | 7:00:00 PM     | 4/15/2023 18:32  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Vehicles Only             | No Injury       | PMX_32884 | Property Damage Only               | PDO                                |               | 4:45:00 PM        | 5:00:00 PM     | 4/17/2023 16:45  | 0 Vehicle Only | S ROCK BLVD & SR648                  |
| Vehicles Only             | No Injury       | PMX_33726 | Property Damage Only               | PDO                                |               | 3:45:00 PM        | 4:00:00 PM     | 4/23/2023 15:45  | 0 Vehicle Only | 1ST & ROCK BLVD                      |
| Vehicles Only             | No Injury       | PMX_35833 | Property Damage Only               | PDO                                |               | 6:48:00 PM        | 7:00:00 PM     | 5/6/2023 18:48   | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668         |
| Vehicles Only             | No Injury       | PMX_35835 | Property Damage Only               | PDO                                |               | 4:52:00 PM        | 5:00:00 PM     | 5/6/2023 16:52   | 0 Vehicle Only | SR668 & VICTORIAN AVE                |
| Vehicles Only             | Possible Injury | PMX_35805 | Possible/Minor Injury              | Possible/Minor Injury              |               | 8:21:00 AM        | 8:00:00 AM     | 5/10/2023 8:21   | 0 Vehicle Only | GREG ST & S ROCK BLVD                |
| Vehicles Only             | No Injury       | PMX_35847 | Property Damage Only               | PDO                                |               | 6:21:00 PM        | 6:00:00 PM     | 5/11/2023 18:21  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Possible Injury | PMX_35962 | Possible/Minor Injury              | Possible/Minor Injury              |               | 10:06:00 AM       | 10:00:00 AM    | 5/16/2023 10:06  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | No Injury       | PMX_36559 | Property Damage Only               | PDO                                |               | 5:28:00 PM        | 5:00:00 PM     | 5/16/2023 17:28  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Possible Injury | PMX_35848 | Possible/Minor Injury              | Possible/Minor Injury              |               | 5:17:00 AM        | 5:00:00 AM     | 5/20/2023 5:17   | 0 Vehicle Only | D ST & ROCK BLVD                     |
| Vehicles Only             | No Injury       | PMX_39965 | Property Damage Only               | PDO                                |               | 3:03:00 PM        | 3:00:00 PM     | 5/20/2023 15:03  | 0 Vehicle Only | ROCK BLVD & SR659                    |
| Vehicles Only             | Possible Injury | PMX_36101 | Possible/Minor Injury              | Possible/Minor Injury              |               | 10:15:00 PM       | 10:00:00 PM    | 5/26/2023 22:15  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Vehicles Only             | Minor Injury    | PMX_36135 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:43:00 AM        | 7:00:00 AM     | 6/2/2023 6:43    | 0 Vehicle Only | ROCK BLVD & YORK WAY                 |
| Vehicles Only             | No Injury       | PMX_36095 | Property Damage Only               | PDO                                |               | 8:55:00 AM        | 9:00:00 AM     | 6/4/2023 8:55    | 0 Vehicle Only | IR80E TO ROCK BLVD INT17 & SR668     |
| Vehicles Only             | Possible Injury | PMX_36100 | Possible/Minor Injury              | Possible/Minor Injury              |               | 3:24:00 PM        | 3:00:00 PM     | 6/4/2023 15:24   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Vehicles Only             | No Injury       | PMX_36224 | Property Damage Only               | PDO                                |               | 3:54:00 PM        | 4:00:00 PM     | 6/7/2023 15:54   | 0 Vehicle Only | PRATER WAY & SR668                   |
| Vehicles Only             | No Injury       | PMX_36331 | Property Damage Only               | PDO                                |               | 10:45:00 AM       | 11:00:00 AM    | 6/20/2023 10:45  | 0 Vehicle Only | S ROCK BLVD & SR648                  |
| Vehicles Only             | Minor Injury    | PMX_36305 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:07:00 PM        | 9:00:00 PM     | 6/23/2023 21:07  | 0 Vehicle Only | SR668 & VICTORIAN AVE                |
| Vehicles Only             | No Injury       | PMX_36584 | Property Damage Only               | PDO                                |               | 6:22:00 PM        | 6:00:00 PM     | 7/4/2023 18:22   | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | No Injury       | PMX_36587 | Property Damage Only               | PDO                                |               | 8:32:00 AM        | 9:00:00 AM     | 7/12/2023 8:32   | 0 Vehicle Only | GREG ST & S ROCK BLVD                |
| Vehicles Only             | Possible Injury | PMX_36548 | Possible/Minor Injury              | Possible/Minor Injury              |               | 5:05:00 PM        | 5:00:00 PM     | 7/20/2023 17:05  | 0 Vehicle Only | GREG ST & S ROCK BLVD                |
| Vehicles Only             | Possible Injury | PMX_40278 | Possible/Minor Injury              | Possible/Minor Injury              |               | 5:46:00 PM        | 6:00:00 PM     | 7/24/2023 17:46  | 0 Vehicle Only | G ST & ROCK BLVD                     |
| Vehicles Only             | No Injury       | PMX_40372 | Property Damage Only               | PDO                                |               | 11:15:00 AM       | 11:00:00 AM    | 7/24/2023 11:15  | 0 Vehicle Only | S ROCK BLVD & SR648                  |
| Vehicles Only             | No Injury       | PMX_40311 | Property Damage Only               | PDO                                |               | 7:30:00 AM        | 8:00:00 AM     | 7/26/2023 7:30   | 0 Vehicle Only | ROCK BLVD & ROCK BLVD TO IR80W INT17 |
| Vehicles Only             | No Injury       | PMX_36748 | Property Damage Only               | PDO                                |               | 1:26:00 PM        | 1:00:00 PM     | 7/31/2023 13:26  | 0 Vehicle Only | PRATER WAY & SR668                   |
| Involved Bicyclist or Ped | Minor Injury    | PMX_36674 | Possible/Minor Injury (Bicyclist)  | Possible/Minor Injury (Bicyclist)  |               | 10:22:00 PM       | 10:00:00 PM    | 8/1/2023 22:22   | 0 Bicyclist    | SR668 & VICTORIAN AVE                |
| Vehicles Only             | No Injury       | PMX_37924 | Property Damage Only               | PDO                                |               | 6:13:00 PM        | 6:00:00 PM     | 8/4/2023 18:13   | 0 Vehicle Only | GLENDALE AVE & S ROCK BLVD           |
| Vehicles Only             | No Injury       | PMX_37268 | Property Damage Only               | PDO                                |               | 10:50:00 PM       | 11:00:00 PM    | 8/4/2023 22:50   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Vehicles Only             | Unknown         | PMX_37303 | Property Damage Only               | PDO                                |               | 12:20:00 AM       | 12:00:00 AM    | 8/5/2023 0:20    | 0 Vehicle Only | D ST & ROCK BLVD                     |
| Vehicles Only             | No Injury       | PMX_37475 | Property Damage Only               | PDO                                |               | 3:41:00 PM        | 4:00:00 PM     | 8/8/2023 15:41   | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17         |
| Vehicles Only             | Possible Injury | PMX_37641 | Possible/Minor Injury              | Possible/Minor Injury              |               | 4:55:00 PM        | 5:00:00 PM     | 8/10/2023 16:55  | 0 Vehicle Only | GLENDALE AVE & S ROCK BLVD           |
| Vehicles Only             | Possible Injury | PMX_39445 | Possible/Minor Injury              | Possible/Minor Injury              |               | 5:52:00 PM        | 6:00:00 PM     | 8/10/2023 17:52  | 0 Vehicle Only | GLENDALE AVE & S ROCK BLVD           |
| Involved Bicyclist or Ped | Possible Injury | PMX_39638 | Possible/Minor Injury (Pedestrian) | Possible/Minor Injury (Pedestrian) |               | 1:57:00 PM        | 2:00:00 PM     | 8/21/2023 13:57  | 0 Pedestrian   | GLENDALE AVE & S ROCK BLVD           |
| Vehicles Only             | Minor Injury    | PMX_39611 | Possible/Minor Injury              | Possible/Minor Injury              |               | 11:00:00 PM       | 11:00:00 PM    | 8/22/2023 23:00  | 0 Vehicle Only | PRATER WAY & ROCK BLVD               |
| Vehicles Only             | Possible Injury | PMX_40512 | Possible/Minor Injury              | Possible/Minor Injury              |               | 8:06:00 AM        | 8:00:00 AM     | 8/22/2023 8:06   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |
| Vehicles Only             | Possible Injury | PMX_40410 | Possible/Minor Injury              | Possible/Minor Injury              |               | 11:19:00 AM       | 11:00:00 AM    | 8/28/2023 11:19  | 0 Vehicle Only | SR668 & VICTORIAN AVE                |
| Vehicles Only             | No Injury       | PMX_40630 | Property Damage Only               | PDO                                |               | 1:05:00 PM        | 1:00:00 PM     | 8/29/2023 13:05  | 0 Vehicle Only | PRATER WAY & SR668                   |
| Vehicles Only             | No Injury       | PMX_40738 | Property Damage Only               | PDO                                |               | 11:28:00 AM       | 11:00:00 AM    | 9/10/2023 11:28  | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD             |
| Vehicles Only             | Unknown         | PMX_40799 | Property Damage Only               | PDO                                |               | 10:19:00 PM       | 10:00:00 PM    | 9/14/2023 22:19  | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE            |

| PMX AT Crashes           | PMX InjuryType  | PMX UI    | WebmapSymbology                    | KTWL Study Corridors               | CrashLocation | PMX NormalizeTime | PMX Timeframes | PMX DayTime      | UserType       | PMX Intersection Location        |
|--------------------------|-----------------|-----------|------------------------------------|------------------------------------|---------------|-------------------|----------------|------------------|----------------|----------------------------------|
| Vehicles Only            | No Injury       | PMX_41058 | Property Damage Only               | PDO                                |               | 7:37:00 AM        | 8:00:00 AM     | 9/15/2023 7:37   | 0 Vehicle Only | IR80W TO ROCK BLVD INT17 & SR668 |
| Vehicles Only            | Possible Injury | PMX_40942 | Possible/Minor Injury              | Possible/Minor Injury              |               | 6:44:00 AM        | 7:00:00 AM     | 9/19/2023 6:44   | 0 Vehicle Only | ROCK BLVD & VICTORIAN AVE        |
| Vehicles Only            | Minor Injury    | PMX_41956 | Possible/Minor Injury              | Possible/Minor Injury              |               | 7:25:00 PM        | 7:00:00 PM     | 9/22/2023 19:25  | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668     |
| Vehicles Only            | Minor Injury    | PMX_40883 | Possible/Minor Injury              | Possible/Minor Injury              |               | 5:40:00 PM        | 6:00:00 PM     | 9/23/2023 17:40  | 0 Vehicle Only | ROCK BLVD & SR659                |
| Vehicles Only            | Possible Injury | PMX_41203 | Possible/Minor Injury              | Possible/Minor Injury              |               | 4:35:00 PM        | 5:00:00 PM     | 9/29/2023 16:35  | 0 Vehicle Only | PRATER WAY & ROCK BLVD           |
| Vehicles Only            | Possible Injury | PMX_41214 | Possible/Minor Injury              | Possible/Minor Injury              |               | 9:57:00 AM        | 10:00:00 AM    | 10/6/2023 9:57   | 0 Vehicle Only | S ROCK BLVD & SR648              |
| Vehicles Only            | Possible Injury | PMX_41244 | Possible/Minor Injury              | Possible/Minor Injury              |               | 10:00:00 PM       | 10:00:00 PM    | 10/7/2023 22:00  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD           |
| Vehicles Only            | No Injury       | PMX_41323 | Property Damage Only               | PDO                                |               | 5:16:00 PM        | 5:00:00 PM     | 10/8/2023 17:16  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD           |
| Vehicles Only            | No Injury       | PMX_41604 | Property Damage Only               | PDO                                |               | 6:03:00 AM        | 6:00:00 AM     | 10/9/2023 6:03   | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD         |
| Involved Bicyclist or Pe | Minor Injury    | PMX_41222 | Possible/Minor Injury (Bicyclist)  | Possible/Minor Injury (Bicyclist)  |               | 6:36:00 AM        | 7:00:00 AM     | 10/10/2023 6:36  | 0 Bicyclist    | PRATER WAY & ROCK BLVD           |
| Vehicles Only            | Possible Injury | PMX_41168 | Possible/Minor Injury              | Possible/Minor Injury              |               | 7:01:00 AM        | 7:00:00 AM     | 10/12/2023 7:01  | 0 Vehicle Only | S ROCK BLVD & SHABER AVE         |
| Vehicles Only            | No Injury       | PMX_41807 | Property Damage Only               | PDO                                |               | 9:05:00 PM        | 9:00:00 PM     | 10/21/2023 21:05 | 0 Vehicle Only | ROCK BLVD & SR659                |
| Vehicles Only            | No Injury       | PMX_41480 | Property Damage Only               | PDO                                |               | 12:39:00 PM       | 1:00:00 PM     | 10/25/2023 12:39 | 0 Vehicle Only | SR668 & VICTORIAN AVE            |
| Vehicles Only            | Possible Injury | PMX_41592 | Possible/Minor Injury              | Possible/Minor Injury              |               | 2:50:00 PM        | 3:00:00 PM     | 10/26/2023 14:50 | 0 Vehicle Only | COMMERCE ST & ROCK BLVD          |
| Vehicles Only            | No Injury       | PMX_41540 | Property Damage Only               | PDO                                |               | 2:21:00 PM        | 2:00:00 PM     | 10/27/2023 14:21 | 0 Vehicle Only | I ST & ROCK BLVD                 |
| Vehicles Only            | No Injury       | PMX_42025 | Property Damage Only               | PDO                                |               | 12:25:00 PM       | 12:00:00 PM    | 11/7/2023 12:25  | 0 Vehicle Only | HYMER AVE & SR668                |
| Vehicles Only            | Possible Injury | PMX_41793 | Possible/Minor Injury              | Possible/Minor Injury              |               | 12:18:00 PM       | 12:00:00 PM    | 11/8/2023 12:18  | 0 Vehicle Only | SR668 & SR668 TO IR80E INT17     |
| Vehicles Only            | Unknown         | PMX_41953 | Property Damage Only               | PDO                                |               | 7:15:00 PM        | 7:00:00 PM     | 11/11/2023 19:15 | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD           |
| Vehicles Only            | Unknown         | PMX_42939 | Property Damage Only               | PDO                                |               | 9:18:00 PM        | 9:00:00 PM     | 11/19/2023 21:18 | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD         |
| Vehicles Only            | Possible Injury | PMX_42779 | Possible/Minor Injury              | Possible/Minor Injury              |               | 1:15:00 PM        | 1:00:00 PM     | 11/19/2023 13:15 | 0 Vehicle Only | ROCK BLVD & SR648                |
| Vehicles Only            | Possible Injury | PMX_42550 | Possible/Minor Injury              | Possible/Minor Injury              |               | 10:48:00 AM       | 11:00:00 AM    | 11/22/2023 10:48 | 0 Vehicle Only | PITTMAN AVE & S ROCK BLVD        |
| Involved Bicyclist or Pe | Possible Injury | PMX_42588 | Possible/Minor Injury (Pedestrian) | Possible/Minor Injury (Pedestrian) |               | 6:55:00 AM        | 7:00:00 AM     | 11/22/2023 6:55  | 0 Pedestrian   | SR668 & VICTORIAN AVE            |
| Vehicles Only            | Unknown         | PMX_42536 | Property Damage Only               | PDO                                |               | 11:51:00 AM       | 12:00:00 PM    | 11/24/2023 11:51 | 0 Vehicle Only | GREENBRAE DR & ROCK BLVD         |
| Vehicles Only            | Possible Injury | PMX_42663 | Possible/Minor Injury              | Possible/Minor Injury              |               | 4:18:00 PM        | 4:00:00 PM     | 11/25/2023 16:18 | 0 Vehicle Only | ROCK BLVD & YORK WAY             |
| Vehicles Only            | No Injury       | PMX_42956 | Property Damage Only               | PDO                                |               | 2:00:00 PM        | 2:00:00 PM     | 11/30/2023 14:00 | 0 Vehicle Only | S ROCK BLVD & SHABER AVE         |
| Vehicles Only            | No Injury       | PMX_42955 | Property Damage Only               | PDO                                |               | 6:15:00 PM        | 6:00:00 PM     | 12/3/2023 18:15  | 0 Vehicle Only | ODDIE BLVD & ROCK BLVD           |
| Involved Bicyclist or Pe | Fatal           | PMX_42597 | Fatal (Pedestrian)                 | Fatal (Pedestrian)                 |               | 5:25:00 PM        | 5:00:00 PM     | 12/7/2023 17:25  | 0 Pedestrian   | IR80E TO ROCK BLVD INT17 & SR668 |
| Involved Bicyclist or Pe | Unknown         | PMX_42600 | Property Damage Only               | PDO                                |               | 3:34:00 PM        | 4:00:00 PM     | 12/9/2023 15:34  | 0 Pedestrian   | C ST & ROCK BLVD                 |
| Vehicles Only            | No Injury       | PMX_42755 | Property Damage Only               | PDO                                |               | 2:37:00 PM        | 3:00:00 PM     | 12/12/2023 14:37 | 0 Vehicle Only | HYMER AVE & SR668                |
| Vehicles Only            | No Injury       | PMX_42497 | Property Damage Only               | PDO                                |               | 5:27:00 PM        | 5:00:00 PM     | 12/12/2023 17:27 | 0 Vehicle Only | IR80E TO SR668 INT17 & SR668     |
| Vehicles Only            | No Injury       | PMX_42900 | Property Damage Only               | PDO                                |               | 12:14:00 PM       | 12:00:00 PM    | 12/18/2023 12:14 | 0 Vehicle Only | SR668 & VICTORIAN AVE            |
| Vehicles Only            | No Injury       | PMX_42582 | Property Damage Only               | PDO                                |               | 5:39:00 PM        | 6:00:00 PM     | 12/22/2023 17:39 | 0 Vehicle Only | D ST & SR668                     |
| Vehicles Only            | Unknown         | PMX_42859 | Property Damage Only               | PDO                                |               | 6:47:00 AM        | 7:00:00 AM     | 12/24/2023 6:47  | 0 Vehicle Only | 15TH ST & ROCK BLVD              |

## City of Sparks Crash Data

## Agenda Item 5.3 (B)

| Date       | Time | H & R | Case #         | Street 1                     | Street 2                 | PMX_Location                             | PMX_Year |
|------------|------|-------|----------------|------------------------------|--------------------------|------------------------------------------|----------|
| 11/5/2025  | 1658 | No    | SPPD25-8044    | ODDIE BLVD                   | ROCK BLVD                | ODDIE BLVD & ROCK BLVD                   | 2025     |
| 11/3/2025  | 1023 | No    | SPPD25-7981    | S ROCK BLVD                  | FREEPORT BLVD            | FREEPORT BLVD & S ROCK BLVD              | 2025     |
| 11/3/2025  | 1118 | No    | SPPD25-7983    | ROCK BLVD                    | GLENDALE AVE             | GLENDALE AVE & ROCK BLVD                 | 2025     |
| 11/3/2025  | 1028 | No    | SPPD25-7982    | S ROCK BLVD                  | GREG ST                  | GREG ST & S ROCK BLVD                    | 2025     |
| 11/1/2025  | 1031 | No    | SPPD25-7930    | ROCK BLVD                    | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD                 | 2025     |
| 10/31/2025 | 2140 | Yes   | SPPD25-7910    | ROCK BLVD                    | H ST                     | H ST & ROCK BLVD                         | 2025     |
| 10/29/2025 | 1912 | No    | SPPD25-7856    | ROCK BLVD                    | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD                 | 2025     |
| 10/26/2025 | 1206 | No    | SPPD25-7773    | ROCK BLVD                    | YORK WAY                 | ROCK BLVD & YORK WAY                     | 2025     |
| 10/25/2025 | 1337 | No    | SPPD25-7751    | ROCK BLVD                    | IR80E TO ROCK BLVD INT17 | IR80E TO ROCK BLVD INT17 & ROCK BLVD     | 2025     |
| 10/23/2025 | 1901 | No    | SPPD25-7699    | ROCK BLVD                    | ODDIE BLVD               | ODDIE BLVD & ROCK BLVD                   | 2025     |
| 10/22/2025 | 1145 | No    | SPPD25-7646    | PRATER WAY                   | ROCK BLVD                | PRATER WAY & ROCK BLVD                   | 2025     |
| 10/16/2025 | 1831 | No    | SPPD25-7489    | ROCK BLVD                    | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 10/13/2025 | 1655 | No    | SPPD25-7416    | ROCK BLVD                    | IR80E                    | IR80E & ROCK BLVD                        | 2025     |
| 10/10/2025 | 1747 | No    | SPPD25-7332    | GREENBRAE DR                 | ROCK BLVD                | GREENBRAE DR & ROCK BLVD                 | 2025     |
| 10/10/2025 | 1849 | No    | SPPD25-7336    | GREENBRAE DR                 | ROCK BLVD                | GREENBRAE DR & ROCK BLVD                 | 2025     |
| 10/8/2025  | 1304 | No    | SPPD25-7278    | ROCK BLVD                    | IR80W                    | IR80W & ROCK BLVD                        | 2025     |
| 10/2/2025  | 137  | No    | SPPD25-7104    | ROCK BLVD                    | I ST                     | I ST & ROCK BLVD                         | 2025     |
| 10/2/2025  | 1047 | No    | SPPD25-7110    | PRATER WAY                   | ROCK BLVD                | PRATER WAY & ROCK BLVD                   | 2025     |
| 10/2/2025  | 2246 | No    | SPPD25-7133    | S ROCK BLVD                  | VICTORIAN AVE            | S ROCK BLVD & VICTORIAN AVE              | 2025     |
| 9/25/2025  | 1712 | No    | SPPD25-6933    | ROCK BLVD                    | TYLER WAY                | ROCK BLVD & TYLER WAY                    | 2025     |
| 9/20/2025  | 1808 | No    | SPPD25-6793-P1 | ROCK BLVD                    | GREG ST                  | GREG ST & ROCK BLVD                      | 2025     |
| 9/20/2025  | 1808 | No    | SPPD25-6793    | ROCK BLVD                    | GREG ST                  | GREG ST & ROCK BLVD                      | 2025     |
| 9/16/2025  | 1733 | No    | SPPD25-6680    | ROCK BLVD                    | F ST                     | F ST & ROCK BLVD                         | 2025     |
| 9/16/2025  | 1626 | No    | SPPD25-6671    | S ROCK BLVD                  | IR80 EB OFF RAMP         | IR80 EB OFF RAMP & S ROCK BLVD           | 2025     |
| 9/6/2025   | 1744 | No    | SPPD25-6417    | ROCK BLVD                    | IR80E TO ROCK BLVD INT17 | IR80E TO ROCK BLVD INT17 & ROCK BLVD     | 2025     |
| 9/4/2025   | 1841 | No    | SPPD25-6356    | ROCK BLVD                    | GAULT WAY                | GAULT WAY & ROCK BLVD                    | 2025     |
| 8/22/2025  | 1513 | No    | SPPD25-6021    | ROCK BLVD                    | PRATER WAY               | PRATER WAY & ROCK BLVD                   | 2025     |
| 8/14/2025  | 900  | No    | SPPD25-5776    | ROCK BLVD                    | GREG ST                  | GREG ST & ROCK BLVD                      | 2025     |
| 8/11/2025  | 1537 | Yes   | SPPD25-5691    | ROCK BLVD                    |                          | Along Segment                            | 2025     |
| 8/10/2025  | 314  | Yes   | SPPD25-5644    | S ROCK BLVD                  | SHABER AVE               | S ROCK BLVD & SHABER AVE                 | 2025     |
| 8/6/2025   | 1200 | Yes   | SPPD25-5544    | S ROCK BLVD                  |                          | Along Segment                            | 2025     |
| 8/4/2025   | 1357 | No    | SPPD25-5483    | ROCK BLVD                    | YORK WAY                 | ROCK BLVD & YORK WAY                     | 2025     |
| 8/3/2025   | 1435 | No    | SPPD25-5459    | ROCK BLVD                    | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 8/2/2025   | 1345 | Yes   | SPPD25-5484    | ROCK BLVD                    | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 7/31/2025  | 1705 | No    | SPPD25-5398    | S ROCK BLVD                  | GLENDALE AVE             | GLENDALE AVE & S ROCK BLVD               | 2025     |
| 7/21/2025  | 302  | No    | SPPD25-5132    | 15TH ST                      | ROCK BLVD                | 15TH ST & ROCK BLVD                      | 2025     |
| 7/17/2025  | 921  | No    | SPPD25-5031    | MCCARRAN BLVD                | ROCK BLVD                | MCCARRAN BLVD & ROCK BLVD                | 2025     |
| 7/15/2025  | 1337 | No    | SPPD25-4981    | S ROCK BLVD                  | HYMER AVE                | HYMER AVE & S ROCK BLVD                  | 2025     |
| 7/12/2025  | 1757 | No    | SPPD25-4900    | ROCK BLVD                    | ODDIE BLVD               | ODDIE BLVD & ROCK BLVD                   | 2025     |
| 7/8/2025   | 1407 | Yes   | SPPD25-4786    | IR80E TO ROCK BLVD           | ROCK BLVD                | IR80E TO ROCK BLVD & ROCK BLVD           | 2025     |
| 7/7/2025   | 2227 | Yes   | SPPD25-4769    | GREG ST                      | S ROCK BLVD              | GREG ST & S ROCK BLVD                    | 2025     |
| 7/6/2025   | 2024 | No    | SPPD25-4741    | ROCK BLVD                    | C ST                     | C ST & ROCK BLVD                         | 2025     |
| 7/6/2025   | 1527 | No    | SPPD25-4734    | ROCK BLVD                    | PRATER WAY               | PRATER WAY & ROCK BLVD                   | 2025     |
| 7/3/2025   | 940  | No    | SPPD25-4652    | ROCK BLVD                    | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 7/2/2025   | 1232 | No    | SPPD25-4634    | S ROCK BLVD                  | GLENDALE AVE             | GLENDALE AVE & S ROCK BLVD               | 2025     |
| 6/21/2025  | 1932 | No    | SPPD25-4380    | ROCK BLVD                    | MCCARRAN BLVD            | MCCARRAN BLVD & ROCK BLVD                | 2025     |
| 6/17/2025  | 627  | Yes   | SPPD25-4253    | ROCK BLVD                    | HYMER AVE                | HYMER AVE & ROCK BLVD                    | 2025     |
| 6/14/2025  | 2322 | No    | SPPD25-4189    | C ST                         | ROCK BLVD                | C ST & ROCK BLVD                         | 2025     |
| 6/11/2025  | 1439 | No    | SPPD25-4096    | ROCK BLVD                    | VANCE WAY                | ROCK BLVD & VANCE WAY                    | 2025     |
| 6/10/2025  | 1900 | Yes   | SPPD25-4075    | S ROCK BLVD                  |                          | Along Segment                            | 2025     |
| 6/5/2025   | 1538 | Yes   | SPPD25-3921    | S ROCK BLVD                  |                          | Along Segment                            | 2025     |
| 5/30/2025  | 927  | Yes   | SPPD25-3801    | ROCK BLVD                    | COMMERCE ST              | COMMERCE ST & ROCK BLVD                  | 2025     |
| 5/30/2025  | 2115 | No    | SPPD25-3813    | PRATER WAY                   | ROCK BLVD                | PRATER WAY & ROCK BLVD                   | 2025     |
| 5/29/2025  | 546  | No    | SPPD25-3775    | VICTORIAN AVE                | ROCK BLVD                | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 5/29/2025  | 546  | No    | SPPD25-3775-P1 | VICTORIAN AVE                | ROCK BLVD                | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 5/27/2025  | 430  | Yes   | SPPD25-3716    | VICTORIAN AVE                | ROCK BLVD                | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 5/16/2025  | 1743 | No    | SPPD25-3446    | ROCK BLVD                    |                          | Along Segment                            | 2025     |
| 5/10/2025  | 1645 | No    | SPPD25-3325    | ROCK BLVD                    | PRATER WAY               | PRATER WAY & ROCK BLVD                   | 2025     |
| 5/9/2025   | 1217 | No    | SPPD25-3297    | ROCK BLVD                    | 15TH ST                  | 15TH ST & ROCK BLVD                      | 2025     |
| 5/9/2025   | 1924 | No    | SPPD25-3308    | ROCK BLVD                    | VANCE WAY                | ROCK BLVD & VANCE WAY                    | 2025     |
| 5/8/2025   | 1649 | No    | SPPD25-3281    | I ST                         | ROCK BLVD                | I ST & ROCK BLVD                         | 2025     |
| 5/3/2025   | 345  | No    | SPPD25-3148    | ROCK BLVD                    | PRATER WAY               | PRATER WAY & ROCK BLVD                   | 2025     |
| 5/2/2025   | 1848 | Yes   | SPPD25-3137    | VICTORIAN AVE                | ROCK BLVD                | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 4/24/2025  | 1230 | Yes   | SPPD25-2932    | S ROCK BLVD                  |                          | Along Segment                            | 2025     |
| 4/18/2025  | 2155 | No    | SPPD25-2768    | S ROCK BLVD                  | FREEPORT BLVD            | FREEPORT BLVD & S ROCK BLVD              | 2025     |
| 4/17/2025  | 949  | No    | SPPD25-2720    | ROCK BLVD                    | ODDIE BLVD               | ODDIE BLVD & ROCK BLVD                   | 2025     |
| 4/17/2025  | 1708 | No    | SPPD25-2729    | ROCK BLVD                    | PRATER WAY               | PRATER WAY & ROCK BLVD                   | 2025     |
| 4/14/2025  | 342  | Yes   | SPPD25-2636    | ROCK BLVD                    | CHESTER SQ               | CHESTER SQ & ROCK BLVD                   | 2025     |
| 4/11/2025  | 1812 | No    | SPPD25-2582    | ROCK BLVD                    | PRATER WAY               | PRATER WAY & ROCK BLVD                   | 2025     |
| 4/10/2025  | 2140 | Yes   | SPPD25-2558    | PRATER WAY                   | ROCK BLVD                | PRATER WAY & ROCK BLVD                   | 2025     |
| 4/5/2025   | 849  | Yes   | SPPD25-2416    | GAULT WAY                    | ROCK BLVD                | GAULT WAY & ROCK BLVD                    | 2025     |
| 4/3/2025   | 934  | No    | SPPD25-2366    | ROCK BLVD                    | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 4/1/2025   | 1337 | No    | SPPD25-2328    | S ROCK BLVD                  | GREG ST                  | GREG ST & S ROCK BLVD                    | 2025     |
| 3/24/2025  | 1708 | No    | SPPD25-2145    | G ST                         | ROCK BLVD                | G ST & ROCK BLVD                         | 2025     |
| 3/22/2025  | 1329 | No    | SPPD25-2094    | ROCK BLVD                    | GREG ST                  | GREG ST & ROCK BLVD                      | 2025     |
| 3/21/2025  | 1532 | No    | SPPD25-2073    | ROCK BLVD                    | IR80E TO ROCK BLVD INT17 | IR80E TO ROCK BLVD INT17 & ROCK BLVD     | 2025     |
| 3/20/2025  | 1622 | Yes   | SPPD25-2051-P1 | PRATER WAY                   | ROCK BLVD                | PRATER WAY & ROCK BLVD                   | 2025     |
| 3/20/2025  | 1622 | Yes   | SPPD25-2051    | PRATER WAY                   | ROCK BLVD                | PRATER WAY & ROCK BLVD                   | 2025     |
| 3/18/2025  | 1510 | No    | SPPD25-1995    | S ROCK BLVD                  | GREG ST                  | GREG ST & S ROCK BLVD                    | 2025     |
| 3/15/2025  | 935  | No    | SPPD25-1923    | ROCK BLVD                    | PRATER WAY               | PRATER WAY & ROCK BLVD                   | 2025     |
| 3/7/2025   | 1227 | No    | SPPD25-1760    | S ROCK BLVD                  | HYMER AVE                | HYMER AVE & S ROCK BLVD                  | 2025     |
| 2/20/2025  | 1012 | No    | SPPD25-1361    | S ROCK BLVD                  | GREG ST                  | GREG ST & S ROCK BLVD                    | 2025     |
| 2/15/2025  | 338  | No    | SPPD25-1225    | IR80W TO IR580S/US395N INT15 | ROCK BLVD                | IR80W TO IR580S/US395N INT15 & ROCK BLVD | 2025     |
| 2/14/2025  | 545  | No    | SPPD25-1197    | GREG ST                      | S ROCK BLVD              | GREG ST & S ROCK BLVD                    | 2025     |
| 2/12/2025  | 1330 | Yes   | SPPD25-1169    | ROCK BLVD                    | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE                | 2025     |
| 2/7/2025   | 1619 | No    | SPPD25-1058    | ROCK BLVD                    | I ST                     | I ST & ROCK BLVD                         | 2025     |
| 2/4/2025   | 1215 | Yes   | SPPD25-1001    | S ROCK BLVD                  |                          | Along Segment                            | 2025     |

## City of Sparks Crash Data

## Agenda Item 5.3 (B)

| Date       | Time | H & R | Case #         | Street 1                   | Street 2                 | PMX_Location                           | PMX_Year |
|------------|------|-------|----------------|----------------------------|--------------------------|----------------------------------------|----------|
| 1/29/2025  | 1715 | Yes   | SPPD25-841     | 15TH ST                    | ROCK BLVD                | 15TH ST & ROCK BLVD                    | 2025     |
| 1/16/2025  | 708  | No    | SPPD25-440     | ROCK BLVD                  | H ST                     | H ST & ROCK BLVD                       | 2025     |
| 1/15/2025  | 1930 | Yes   | SPPD25-433     | HYMER AVE                  | S ROCK BLVD              | HYMER AVE & S ROCK BLVD                | 2025     |
| 1/10/2025  | 1927 | Yes   | SPPD25-289     | S ROCK BLVD                |                          | Along Segment                          | 2025     |
| 1/8/2025   | 1049 | Yes   | SPPD25-225     | ROCK BLVD                  | H ST                     | H ST & ROCK BLVD                       | 2025     |
| 1/5/2025   | 56   | No    | SPPD25-148     | S ROCK BLVD                |                          | Along Segment                          | 2025     |
| 1/1/2025   | 154  | No    | SPPD25-2       | IR80W TO ROCK BLVD INT17   |                          | Along Segment                          | 2025     |
| 12/31/2024 | 1347 | Yes   | SPPD24-10292   | ROCK BLVD                  | PRATER WAY               | PRATER WAY & ROCK BLVD                 | 2024     |
| 12/27/2024 | 820  | No    | SPPD24-10180   | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 12/27/2024 | 1000 | No    | SPPD24-10182   | S ROCK BLVD                | SHABER AVE               | S ROCK BLVD & SHABER AVE               | 2024     |
| 12/19/2024 | 1729 | Yes   | SPPD24-9998    | FREEPORT BLVD              | S ROCK BLVD              | FREEPORT BLVD & S ROCK BLVD            | 2024     |
| 12/19/2024 | 1857 | Yes   | SPPD24-10004   | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 12/18/2024 | 1430 | No    | SPPD24-9949    | S ROCK BLVD                |                          | Along Segment                          | 2024     |
| 12/17/2024 | 1427 | No    | SPPD24-9907    | GREG ST                    | S ROCK BLVD              | GREG ST & S ROCK BLVD                  | 2024     |
| 12/17/2024 | 700  | Yes   | SPPD24-9937    | VICTORIAN AVE              | ROCK BLVD                | ROCK BLVD & VICTORIAN AVE              | 2024     |
| 12/13/2024 | 2243 | No    | SPPD24-9822    | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 12/13/2024 | 1415 | No    | SPPD24-9816    | ROCK BLVD                  | VANCE WAY                | ROCK BLVD & VANCE WAY                  | 2024     |
| 12/12/2024 | 1654 | Yes   | SPPD24-10096   | ROCK BLVD                  |                          | Along Segment                          | 2024     |
| 12/9/2024  | 2304 | Yes   | SPPD24-9703    | ROCK BLVD                  | IR80E                    | IR80E & ROCK BLVD                      | 2024     |
| 12/6/2024  | 1135 | Yes   | SPPD24-9611    | S ROCK BLVD                |                          | Along Segment                          | 2024     |
| 12/5/2024  | 1621 | No    | SPPD24-9589    | VICTORIAN AVE              | ROCK BLVD                | ROCK BLVD & VICTORIAN AVE              | 2024     |
| 12/2/2024  | 1636 | No    | SPPD24-9511    | ROCK BLVD                  | IR80E                    | IR80E & ROCK BLVD                      | 2024     |
| 12/2/2024  | 1855 | No    | SPPD24-9514    | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 11/29/2024 | 435  | No    | SPPD24-9422-P1 | GLENDALE AVE               | S ROCK BLVD              | GLENDALE AVE & S ROCK BLVD             | 2024     |
| 11/29/2024 | 435  | No    | SPPD24-9422    | GLENDALE AVE               | S ROCK BLVD              | GLENDALE AVE & S ROCK BLVD             | 2024     |
| 11/27/2024 | 2102 | Yes   | SPPD24-9400    | S ROCK BLVD                | SOUTH ROCK BLVD          | S ROCK BLVD & SOUTH ROCK BLVD          | 2024     |
| 11/24/2024 | 1136 | No    | SPPD24-9310    | 1726 1/2 C STREETS PARKSNV | ROCK BLVD                | 1726 1/2 C STREETS PARKSNV & ROCK BLVD | 2024     |
| 11/24/2024 | 1427 | No    | SPPD24-9314    | ODDIE BLVD                 | ROCK BLVD                | ODDIE BLVD & ROCK BLVD                 | 2024     |
| 11/21/2024 | 735  | No    | SPPD24-9233    | GLENDALE AVE               | S ROCK BLVD              | GLENDALE AVE & S ROCK BLVD             | 2024     |
| 11/18/2024 | 1614 | No    | SPPD24-9170    | ROCK BLVD                  | 15TH ST                  | 15TH ST & ROCK BLVD                    | 2024     |
| 11/17/2024 | 1730 | Yes   | SPPD24-9199    | S ROCK BLVD                |                          | Along Segment                          | 2024     |
| 11/16/2024 | 1237 | No    | SPPD24-9110    | ROCK BLVD                  | YORK WAY                 | ROCK BLVD & YORK WAY                   | 2024     |
| 11/11/2024 | 1745 | Yes   | SPPD24-9341    | ROCK BLVD                  | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD               | 2024     |
| 11/11/2024 | 1541 | Yes   | SPPD24-8983    | S ROCK BLVD                | HYMER AVE                | HYMER AVE & S ROCK BLVD                | 2024     |
| 11/9/2024  | 1806 | No    | SPPD24-8932    | ROCK BLVD                  | G ST                     | G ST & ROCK BLVD                       | 2024     |
| 11/4/2024  | 1430 | Yes   | SPPD24-8841    | S ROCK BLVD                | GREG ST                  | GREG ST & S ROCK BLVD                  | 2024     |
| 11/4/2024  | 429  | No    | SPPD24-8767    | ROCK BLVD                  | IR80E                    | IR80E & ROCK BLVD                      | 2024     |
| 10/31/2024 | 704  | No    | SPPD24-8672    | ROCK BLVD                  | I ST                     | I ST & ROCK BLVD                       | 2024     |
| 10/31/2024 | 1647 | No    | SPPD24-8694    | ROCK BLVD                  | TYLER WAY                | ROCK BLVD & TYLER WAY                  | 2024     |
| 10/23/2024 | 820  | No    | SPPD24-8457    | ROCK BLVD                  | I ST                     | I ST & ROCK BLVD                       | 2024     |
| 10/22/2024 | 1930 | No    | SPPD24-8445    | GLENDALE AVE               | ROCK BLVD                | GLENDALE AVE & ROCK BLVD               | 2024     |
| 10/22/2024 | 1726 | Yes   | SPPD24-8442-P2 | ROCK BLVD                  | IR80E TO ROCK BLVD       | IR80E TO ROCK BLVD & ROCK BLVD         | 2024     |
| 10/22/2024 | 1726 | Yes   | SPPD24-8442-P1 | ROCK BLVD                  | IR80E TO ROCK BLVD       | IR80E TO ROCK BLVD & ROCK BLVD         | 2024     |
| 10/22/2024 | 1726 | Yes   | SPPD24-8442    | ROCK BLVD                  | IR80E TO ROCK BLVD       | IR80E TO ROCK BLVD & ROCK BLVD         | 2024     |
| 10/18/2024 | 630  | Yes   | SPPD24-8308    | YORK WAY                   | ROCK BLVD                | ROCK BLVD & YORK WAY                   | 2024     |
| 10/16/2024 | 1713 | Yes   | SPPD24-8272    | S ROCK BLVD                |                          | Along Segment                          | 2024     |
| 10/15/2024 | 1736 | No    | SPPD24-8239    | S ROCK BLVD                | SHABER AVE               | S ROCK BLVD & SHABER AVE               | 2024     |
| 10/9/2024  | 1511 | No    | SPPD24-8067    | S ROCK BLVD                | SHABER AVE               | S ROCK BLVD & SHABER AVE               | 2024     |
| 10/8/2024  | 1944 | No    | SPPD24-8037    | ROCK BLVD                  | HYMER AVE                | HYMER AVE & ROCK BLVD                  | 2024     |
| 10/5/2024  | 951  | Yes   | SPPD24-7916    | ROCK BLVD                  | ODDIE BLVD               | ODDIE BLVD & ROCK BLVD                 | 2024     |
| 10/5/2024  | 1909 | No    | SPPD24-7926    | ROCK BLVD                  | YORK WAY                 | ROCK BLVD & YORK WAY                   | 2024     |
| 10/3/2024  | 2300 | No    | SPPD24-7889    | ROCK BLVD                  | IR80E TO ROCK BLVD       | IR80E TO ROCK BLVD & ROCK BLVD         | 2024     |
| 10/1/2024  | 1632 | No    | SPPD24-7822    | ROCK BLVD                  | F ST                     | F ST & ROCK BLVD                       | 2024     |
| 9/30/2024  | 1514 | No    | SPPD24-7784    | ROCK BLVD                  | COMMERCE ST              | COMMERCE ST & ROCK BLVD                | 2024     |
| 9/30/2024  | 732  | No    | SPPD24-7766    | ROCK BLVD                  | I ST                     | I ST & ROCK BLVD                       | 2024     |
| 9/30/2024  | 1123 | No    | SPPD24-7771    | ROCK BLVD                  | I80 WB ON RAMP           | I80 WB ON RAMP & ROCK BLVD             | 2024     |
| 9/29/2024  | 1858 | Yes   | SPPD24-7759    | ROCK BLVD                  | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD               | 2024     |
| 9/29/2024  | 1227 | No    | SPPD24-7753    | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 9/25/2024  | 826  | Yes   | SPPD24-7632    | D ST                       | ROCK BLVD                | D ST & ROCK BLVD                       | 2024     |
| 9/25/2024  | 1504 | No    | SPPD24-7640    | ROCK BLVD                  | ZEPHYR WAY               | ROCK BLVD & ZEPHYR WAY                 | 2024     |
| 9/22/2024  | 2118 | Yes   | SPPD24-7605    | ROCK BLVD                  | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE              | 2024     |
| 9/20/2024  | 1553 | No    | SPPD24-7494    | ROCK BLVD                  | PRATER WAY               | PRATER WAY & ROCK BLVD                 | 2024     |
| 9/19/2024  | 1702 | No    | SPPD24-7470    | ROCK BLVD                  | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD               | 2024     |
| 9/15/2024  | 1531 | Yes   | SPPD24-7334    | S ROCK BLVD                | GREG ST                  | GREG ST & S ROCK BLVD                  | 2024     |
| 9/13/2024  | 1951 | Yes   | SPPD24-7301-P1 | OPPIO ST                   | ROCK BLVD                | OPPIO ST & ROCK BLVD                   | 2024     |
| 9/13/2024  | 1951 | Yes   | SPPD24-7301    | OPPIO ST                   | ROCK BLVD                | OPPIO ST & ROCK BLVD                   | 2024     |
| 9/13/2024  | 2101 | No    | SPPD24-7303    | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 8/31/2024  | 2009 | No    | SPPD24-6920    | ROCK BLVD                  | F ST                     | F ST & ROCK BLVD                       | 2024     |
| 8/31/2024  | 2009 | No    | SPPD24-6920-P1 | ROCK BLVD                  | F ST                     | F ST & ROCK BLVD                       | 2024     |
| 8/26/2024  | 1830 | No    | SPPD24-6754    | C ST                       | ROCK BLVD                | C ST & ROCK BLVD                       | 2024     |
| 8/19/2024  | 1254 | Yes   | SPPD24-6532    | S ROCK BLVD                | GLENDALE AVE             | GLENDALE AVE & S ROCK BLVD             | 2024     |
| 8/19/2024  | 1254 | Yes   | SPPD24-6532-P1 | S ROCK BLVD                | GLENDALE AVE             | GLENDALE AVE & S ROCK BLVD             | 2024     |
| 8/17/2024  | 2258 | No    | SPPD24-6486    | S ROCK BLVD                | GREG ST                  | GREG ST & S ROCK BLVD                  | 2024     |
| 8/16/2024  | 1914 | No    | SPPD24-6464    | ROCK BLVD                  | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD               | 2024     |
| 8/14/2024  | 2131 | No    | SPPD24-6406    | ROCK BLVD                  |                          | Along Segment                          | 2024     |
| 8/11/2024  | 1508 | Yes   | SPPD24-6292    | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 8/8/2024   | 1349 | No    | SPPD24-6226    | ROCK BLVD                  | PRATER WAY               | PRATER WAY & ROCK BLVD                 | 2024     |
| 8/7/2024   | 1948 | No    | SPPD24-6201    | ROCK BLVD                  | ROCK BLVD TO IR80W INT17 | ROCK BLVD & ROCK BLVD TO IR80W INT17   | 2024     |
| 8/2/2024   | 2104 | Yes   | SPPD24-6065    | S ROCK BLVD                | GREG ST                  | GREG ST & S ROCK BLVD                  | 2024     |
| 7/21/2024  | 1300 | Yes   | SPPD24-5742-P1 | S ROCK BLVD                |                          | Along Segment                          | 2024     |
| 7/21/2024  | 1300 | Yes   | SPPD24-5742    | S ROCK BLVD                |                          | Along Segment                          | 2024     |
| 7/20/2024  | 1858 | No    | SPPD24-5708    | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 7/13/2024  | 1615 | No    | SPPD24-5494    | ROCK BLVD                  | ODDIE BLVD               | ODDIE BLVD & ROCK BLVD                 | 2024     |
| 7/13/2024  | 1839 | No    | SPPD24-5495    | ROCK BLVD                  | PRATER WAY               | PRATER WAY & ROCK BLVD                 | 2024     |
| 7/10/2024  | 1125 | No    | SPPD24-5387    | PRATER WAY                 | ROCK BLVD                | PRATER WAY & ROCK BLVD                 | 2024     |
| 7/7/2024   | 1647 | No    | SPPD24-5322    | ROCK BLVD                  | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD               | 2024     |
| 7/6/2024   | 2000 | Yes   | SPPD24-5417    | S ROCK BLVD                |                          | Along Segment                          | 2024     |
| 7/6/2024   | 2000 | Yes   | SPPD24-5417-P1 | S ROCK BLVD                |                          | Along Segment                          | 2024     |



## City of Sparks Crash Data

## Agenda Item 5.3 (B)

| Date       | Time | H & R | Case #         | Street 1       | Street 2                 | PMX_Location                         | PMX_Year |
|------------|------|-------|----------------|----------------|--------------------------|--------------------------------------|----------|
| 7/3/2024   | 2220 | No    | SPPD24-5212    | ROCK BLVD      | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD             | 2024     |
| 7/3/2024   | 2220 | No    | SPPD5212-P1    | ROCK BLVD      | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD             | 2024     |
| 7/2/2024   | 1    | Yes   | SPPD24-5154    | TYLER WAY      | ROCK BLVD                | ROCK BLVD & TYLER WAY                | 2024     |
| 7/1/2024   | 1826 | No    | SPPD24-5147    | GREENBRAE DR   | ROCK BLVD                | GREENBRAE DR & ROCK BLVD             | 2024     |
| 6/28/2024  | 2200 | Yes   | SPPD24-5087    | SHABER AVE     | ROCK BLVD                | ROCK BLVD & SHABER AVE               | 2024     |
| 6/27/2024  | 855  | No    | SPPD24-5031    | ROCK BLVD      | C ST                     | C ST & ROCK BLVD                     | 2024     |
| 6/27/2024  | 1448 | Yes   | SPPD24-5050    | GREG ST        | ROCK BLVD                | GREG ST & ROCK BLVD                  | 2024     |
| 6/26/2024  | 1534 | Yes   | SPPD24-5013    | ROCK BLVD      | PRATER WAY               | PRATER WAY & ROCK BLVD               | 2024     |
| 6/17/2024  | 2148 | No    | SPPD24-4770    | ROCK BLVD      | CHANCIE WAY              | CHANCIE WAY & ROCK BLVD              | 2024     |
| 6/17/2024  | 545  | No    | SPPD24-4745    | ROCK BLVD      | GREG ST                  | GREG ST & ROCK BLVD                  | 2024     |
| 6/15/2024  | 55   | No    | SPPD24-4691    | GREG ST        | S ROCK BLVD              | GREG ST & S ROCK BLVD                | 2024     |
| 6/12/2024  | 1211 | No    | SPPD24-4611    | ROCK BLVD      | C ST                     | C ST & ROCK BLVD                     | 2024     |
| 6/11/2024  | 1238 | No    | SPPD24-4585    | GREG ST        | S ROCK BLVD              | GREG ST & S ROCK BLVD                | 2024     |
| 6/11/2024  | 650  | No    | SPPD24-4576    | S ROCK BLVD    | PITTMAN AVE              | PITTMAN AVE & S ROCK BLVD            | 2024     |
| 6/9/2024   | 1207 | No    | SPPD24-4531-P1 | ROCK BLVD      | PRATER WAY               | PRATER WAY & ROCK BLVD               | 2024     |
| 6/9/2024   | 1207 | No    | SPPD24-4531    | ROCK BLVD      | PRATER WAY               | PRATER WAY & ROCK BLVD               | 2024     |
| 6/8/2024   | 957  | Yes   | SPPD24-4512    | S ROCK BLVD    | GREG ST                  | GREG ST & S ROCK BLVD                | 2024     |
| 6/7/2024   | 1409 | No    | SPPD24-4481    | ROCK BLVD      | PRATER WAY               | PRATER WAY & ROCK BLVD               | 2024     |
| 6/6/2024   | 640  | No    | SPPD24-4432    | ROCK BLVD      | COMMERCE ST              | COMMERCE ST & ROCK BLVD              | 2024     |
| 6/6/2024   | 848  | No    | SPPD24-4435    | ROCK BLVD      | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD             | 2024     |
| 6/6/2024   | 1345 | No    | SPPD24-4447    | ROCK BLVD      | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE            | 2024     |
| 6/3/2024   | 1524 | No    | SPPD24-4356    | ROCK BLVD      | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE            | 2024     |
| 5/31/2024  | 1930 | No    | SPPD24-4291    | ROCK BLVD      | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD             | 2024     |
| 5/31/2024  | 1615 | No    | SPPD24-4287    | GREENBRAE DR   | ROCK BLVD                | GREENBRAE DR & ROCK BLVD             | 2024     |
| 5/31/2024  | 1713 | No    | SPPD24-4288    | ROCK BLVD      | ODDIE BLVD               | ODDIE BLVD & ROCK BLVD               | 2024     |
| 5/29/2024  | 1634 | No    | SPPD24-4221    | ROCK BLVD      | H ST                     | H ST & ROCK BLVD                     | 2024     |
| 5/28/2024  | 1643 | No    | SPPD24-4198    | ROCK BLVD      | GREG ST                  | GREG ST & ROCK BLVD                  | 2024     |
| 5/22/2024  | 1618 | No    | SPPD24-4025    | S ROCK BLVD    | FREEMPORT BLVD           | FREEMPORT BLVD & S ROCK BLVD         | 2024     |
| 5/16/2024  | 1530 | Yes   | SPPD24-3851    | S ROCK BLVD    | GLENDALE AVE             | GLENDALE AVE & S ROCK BLVD           | 2024     |
| 5/16/2024  | 820  | Yes   | SPPD24-3848    | ROCK BLVD      | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE            | 2024     |
| 5/5/2024   | 612  | No    | SPPD24-3503    | CRANE WAY      | ROCK BLVD                | CRANE WAY & ROCK BLVD                | 2024     |
| 5/2/2024   | 1646 | Yes   | SPPD24-3439    | S ROCK BLVD    | GLENDALE AVE             | GLENDALE AVE & S ROCK BLVD           | 2024     |
| 5/2/2024   | 2009 | No    | SPPD24-3444    | ROCK BLVD      | ODDIE BLVD               | ODDIE BLVD & ROCK BLVD               | 2024     |
| 4/27/2024  | 2304 | No    | SPPD24-3302    | ROCK BLVD      | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD             | 2024     |
| 4/18/2024  | 1515 | Yes   | SPPD24-3098-P1 | S ROCK BLVD    | HYMER AVE                | HYMER AVE & S ROCK BLVD              | 2024     |
| 4/18/2024  | 1515 | Yes   | SPPD24-3098    | S ROCK BLVD    | HYMER AVE                | HYMER AVE & S ROCK BLVD              | 2024     |
| 4/15/2024  | 311  | No    | SPPD24-2969    | ROCK BLVD      | PRATER WAY               | PRATER WAY & ROCK BLVD               | 2024     |
| 4/13/2024  | 1521 | Yes   | SPPD24-50836   | S ROCK BLVD    |                          | Along Segment                        | 2024     |
| 4/7/2024   | 712  | No    | SPPD24-2767    | S ROCK BLVD    | GREG ST                  | GREG ST & S ROCK BLVD                | 2024     |
| 4/7/2024   | 1045 | Yes   | SPPD24-2772    | VICTORIAN AVE  | ROCK BLVD                | ROCK BLVD & VICTORIAN AVE            | 2024     |
| 4/2/2024   | 1350 | No    | SPPD24-2626    | ROCK BLVD      | GAULT WAY                | GAULT WAY & ROCK BLVD                | 2024     |
| 3/31/2024  | 355  | No    | SPPD24-2581    | 15TH ST        | ROCK BLVD                | 15TH ST & ROCK BLVD                  | 2024     |
| 3/30/2024  | 1622 | No    | SPPD24-2912    | ROCK BLVD      |                          | Along Segment                        | 2024     |
| 3/30/2024  | 1622 | No    | SPPD24-2912-P2 | ROCK BLVD      |                          | Along Segment                        | 2024     |
| 3/30/2024  | 1622 | No    | SPPD24-2912-P1 | ROCK BLVD      |                          | Along Segment                        | 2024     |
| 3/28/2024  | 710  | No    | SPPD24-2520    | ROCK BLVD      | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE            | 2024     |
| 3/23/2024  | 1843 | No    | SPPD24-2392    | ROCK BLVD      | D ST                     | D ST & ROCK BLVD                     | 2024     |
| 3/20/2024  | 1210 | No    | SPPD24-2285    | ROCK BLVD      | COMMERCE ST              | COMMERCE ST & ROCK BLVD              | 2024     |
| 3/18/2024  | 1500 | Yes   | SPPD24-2226    | ROCK BLVD      |                          | Along Segment                        | 2024     |
| 3/8/2024   | 1455 | Yes   | SPPD24-1963    | ROCK BLVD      | TYLER WAY                | ROCK BLVD & TYLER WAY                | 2024     |
| 3/4/2024   | 1233 | No    | SPPD24-1832    | ROCK BLVD      | G ST                     | G ST & ROCK BLVD                     | 2024     |
| 2/22/2024  | 1950 | Yes   | SPPD24-1546    | PRATER WAY     | ROCK BLVD                | PRATER WAY & ROCK BLVD               | 2024     |
| 2/21/2024  | 1400 | Yes   | SPPD24-1514    | ROCK BLVD      |                          | Along Segment                        | 2024     |
| 2/21/2024  | 1400 | Yes   | SPPD24-1514-P1 | ROCK BLVD      |                          | Along Segment                        | 2024     |
| 2/17/2024  | 431  | No    | SPPD24-1378    | GAULT WAY      | ROCK BLVD                | GAULT WAY & ROCK BLVD                | 2024     |
| 2/7/2024   | 1626 | No    | SPPD24-1128    | ROCK BLVD      | C ST                     | C ST & ROCK BLVD                     | 2024     |
| 2/5/2024   | 1920 | Yes   | SPPD24-1087    | ROCK BLVD      | MCCARRAN BLVD            | MCCARRAN BLVD & ROCK BLVD            | 2024     |
| 2/2/2024   | 1230 | Yes   | SPPD24-984     | 15TH ST        | ROCK BLVD                | 15TH ST & ROCK BLVD                  | 2024     |
| 1/28/2024  | 1410 | Yes   | SPPD24-865     | ROCK BLVD      | TYLER WAY                | ROCK BLVD & TYLER WAY                | 2024     |
| 1/27/2024  | 2201 | No    | SPPD24-824     | ROCK BLVD      | GLENDALE AVE             | GLENDALE AVE & ROCK BLVD             | 2024     |
| 1/26/2024  | 1905 | No    | SPPD24-791     | ROCK BLVD      | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD             | 2024     |
| 1/26/2024  | 1811 | No    | SPPD24-790     | ROCK BLVD      | TYLER WAY                | ROCK BLVD & TYLER WAY                | 2024     |
| 1/26/2024  | 236  | Yes   | SPPD24-0771    | ROCK BLVD      | VANCE WAY                | ROCK BLVD & VANCE WAY                | 2024     |
| 1/14/2024  | 1228 | Yes   | SPPD24-392     | S ROCK BLVD    |                          | Along Segment                        | 2024     |
| 1/6/2024   | 1649 | No    | SPPD24-175     | ROCK BLVD      | 15TH ST                  | 15TH ST & ROCK BLVD                  | 2024     |
| 1/5/2024   | 1725 | No    | SPPD24-151     | IR80W          | ROCK BLVD                | IR80W & ROCK BLVD                    | 2024     |
| 1/4/2024   | 1420 | No    | SPPD24-119     | FREEMPORT BLVD | S ROCK BLVD              | FREEMPORT BLVD & S ROCK BLVD         | 2024     |
| 1/3/2024   | 1755 | Yes   | SPPD24-98      | ROCK BLVD      | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE            | 2024     |
| 12/30/2023 | 1158 | No    | SPPD23-10198   | PRATER WAY     | ROCK BLVD                | PRATER WAY & ROCK BLVD               | 2023     |
| 12/24/2023 | 647  | Yes   | SPPD23-10021   | ROCK BLVD      | 15TH ST                  | 15TH ST & ROCK BLVD                  | 2023     |
| 12/22/2023 | 1739 | No    | SPPD23-9976    | ROCK BLVD      | D ST                     | D ST & ROCK BLVD                     | 2023     |
| 12/22/2023 | 641  | No    | SPPD23-9957    | ROCK BLVD      | UNDERNEATH I-80 OVERPASS | ROCK BLVD & UNDERNEATH I-80 OVERPASS | 2023     |
| 12/18/2023 | 1214 | No    | SPPD23-9822    | ROCK BLVD      | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE            | 2023     |
| 12/12/2023 | 1437 | No    | SPPD23-9643    | S ROCK BLVD    | HYMER AVE                | HYMER AVE & S ROCK BLVD              | 2023     |
| 12/9/2023  | 1534 | No    | SPPD23-9512    | ROCK BLVD      | C ST                     | C ST & ROCK BLVD                     | 2023     |
| 12/7/2023  | 1725 | Yes   | SPPD23-9491    | SR668          | IR80E TO ROCK BLVD INT17 | IR80E TO ROCK BLVD INT17 & SR668     | 2023     |
| 12/7/2023  | 1725 | Yes   | SPPD23-9491-P1 | SR668          | IR80E TO ROCK BLVD INT17 | IR80E TO ROCK BLVD INT17 & SR668     | 2023     |
| 12/5/2023  | 813  | No    | SPPD23-9384    | ROCK BLVD      | C ST                     | C ST & ROCK BLVD                     | 2023     |
| 12/3/2023  | 1815 | No    | SPPD23-9331    | ROCK BLVD      | ODDIE BLVD               | ODDIE BLVD & ROCK BLVD               | 2023     |
| 11/30/2023 | 1400 | No    | SPPD23-9228    | SHABER AVE     | S ROCK BLVD              | S ROCK BLVD & SHABER AVE             | 2023     |
| 11/25/2023 | 1618 | No    | SPPD23-9088    | ROCK BLVD      | YORK WAY                 | ROCK BLVD & YORK WAY                 | 2023     |
| 11/24/2023 | 1151 | No    | SPPD23-9053    | ROCK BLVD      | GREENBRAE DR             | GREENBRAE DR & ROCK BLVD             | 2023     |
| 11/23/2023 | 2300 | Yes   | SPPD23-9365    | ROCK BLVD      |                          | Along Segment                        | 2023     |
| 11/22/2023 | 1048 | No    | SPPD23-8996    | S ROCK BLVD    | PITTMAN AVE              | PITTMAN AVE & S ROCK BLVD            | 2023     |
| 11/22/2023 | 655  | Yes   | SPPD23-8987    | ROCK BLVD      | VICTORIAN AVE            | ROCK BLVD & VICTORIAN AVE            | 2023     |
| 11/19/2023 | 1315 | No    | SPPD23-8917    | GLENDALE AVE   | ROCK BLVD                | GLENDALE AVE & ROCK BLVD             | 2023     |
| 11/19/2023 | 2118 | Yes   | SPPD23-8927    | GREENBRAE DR   | ROCK BLVD                | GREENBRAE DR & ROCK BLVD             | 2023     |
| 11/18/2023 | 500  | Yes   | SPPD23-8879    | ROCK BLVD      |                          | Along Segment                        | 2023     |

## City of Sparks Crash Data

## Agenda Item 5.3 (B)

| Date       | Time | H & R | Case #         | Street 1      | Street 2       | PMX_Location                | PMX_Year |
|------------|------|-------|----------------|---------------|----------------|-----------------------------|----------|
| 11/11/2023 | 1915 | No    | SPPD23-8700    | ROCK BLVD     |                | Along Segment               | 2023     |
| 11/8/2023  | 1218 | No    | SPPD23-8600    | ROCK BLVD     | I80 EB OFF     | I80 EB OFF & ROCK BLVD      | 2023     |
| 11/7/2023  | 1225 | No    | SPPD23-8567    | HYMER AVE     | S ROCK BLVD    | HYMER AVE & S ROCK BLVD     | 2023     |
| 10/28/2023 | 105  | Yes   | SPPD23-8290    | ROCK BLVD     | I80            | I80 & ROCK BLVD             | 2023     |
| 10/27/2023 | 1421 | No    | SPPD23-8278    | ROCK BLVD     | I ST           | I ST & ROCK BLVD            | 2023     |
| 10/26/2023 | 1450 | No    | SPPD23-8248    | ROCK BLVD     | COMMERCE ST    | COMMERCE ST & ROCK BLVD     | 2023     |
| 10/26/2023 | 720  | No    | SPPD23-8236    | S ROCK BLVD   | HYMER AVE      | HYMER AVE & S ROCK BLVD     | 2023     |
| 10/26/2023 | 824  | No    | SPPD23-8238    | S ROCK BLVD   |                | Along Segment               | 2023     |
| 10/25/2023 | 1239 | No    | SPPD23-8219-P1 | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 10/25/2023 | 1239 | No    | SPPD23-8219    | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 10/20/2023 | 559  | No    | SPPD23-8024    | S ROCK BLVD   | GREG ST        | GREG ST & S ROCK BLVD       | 2023     |
| 10/12/2023 | 701  | No    | SPPD23-7800    | S ROCK BLVD   | SHABER AVE     | S ROCK BLVD & SHABER AVE    | 2023     |
| 10/11/2023 | 737  | No    | SPPD23-7772    | ROCK BLVD     | I-80WB         | I-80WB & ROCK BLVD          | 2023     |
| 10/10/2023 | 636  | No    | SPPD23-7743    | ROCK BLVD     | PRATER WAY     | PRATER WAY & ROCK BLVD      | 2023     |
| 10/9/2023  | 603  | No    | SPPD23-7715    | ROCK BLVD     | GREENBRAE DR   | GREENBRAE DR & ROCK BLVD    | 2023     |
| 10/8/2023  | 1716 | No    | SPPD23-7709    | ROCK BLVD     | ODDIE BLVD     | ODDIE BLVD & ROCK BLVD      | 2023     |
| 10/7/2023  | 2200 | No    | SPPD23-7693    | ROCK BLVD     | ODDIE BLVD     | ODDIE BLVD & ROCK BLVD      | 2023     |
| 10/7/2023  | 1446 | No    | SPPD23-7682    | VICTORIAN AVE | ROCK BLVD      | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 10/6/2023  | 957  | Yes   | SPPD23-7650    | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 9/29/2023  | 1635 | Yes   | SPPD23-7485    | PRATER WAY    | ROCK BLVD      | PRATER WAY & ROCK BLVD      | 2023     |
| 9/23/2023  | 1740 | No    | SPPD23-7332    | ROCK BLVD     | MCCARRAN BLVD  | MCCARRAN BLVD & ROCK BLVD   | 2023     |
| 9/22/2023  | 2027 | No    | SPPD23-7311    | ROCK BLVD     | GREENBRAE DR   | GREENBRAE DR & ROCK BLVD    | 2023     |
| 9/20/2023  | 1845 | Yes   | SPPD23-7270-P1 | S ROCK BLVD   | PITTMAN AVE    | PITTMAN AVE & S ROCK BLVD   | 2023     |
| 9/20/2023  | 1845 | Yes   | SPPD23-7270    | S ROCK BLVD   | PITTMAN AVE    | PITTMAN AVE & S ROCK BLVD   | 2023     |
| 9/19/2023  | 644  | No    | SPPD23-7210    | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 9/14/2023  | 2219 | No    | SPPD23-7091    | VICTORIAN AVE | ROCK BLVD      | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 9/10/2023  | 1128 | No    | SPPD23-6958    | ROCK BLVD     | GREENBRAE DR   | GREENBRAE DR & ROCK BLVD    | 2023     |
| 9/9/2023   | 549  | No    | SPPD23-6937    | ROCK BLVD     | COMMERCE ST    | COMMERCE ST & ROCK BLVD     | 2023     |
| 9/7/2023   | 2357 | No    | SPPD23-6901    | S ROCK BLVD   | GREG ST        | GREG ST & S ROCK BLVD       | 2023     |
| 8/29/2023  | 1305 | Yes   | SPPD23-6602    | ROCK BLVD     | PRATER WAY     | PRATER WAY & ROCK BLVD      | 2023     |
| 8/28/2023  | 1119 | No    | SPPD23-6565    | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 8/26/2023  | 2343 | Yes   | SPPD23-6534    | ROCK BLVD     | COMMERCE ST    | COMMERCE ST & ROCK BLVD     | 2023     |
| 8/22/2023  | 2300 | No    | SPPD23-6418    | PRATER WAY    | ROCK BLVD      | PRATER WAY & ROCK BLVD      | 2023     |
| 8/22/2023  | 806  | No    | SPPD23-6394    | VICTORIAN AVE | ROCK BLVD      | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 8/21/2023  | 1357 | No    | SPPD23-6364    | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 8/19/2023  | 711  | No    | SPPD23-6306    | S ROCK BLVD   |                | Along Segment               | 2023     |
| 8/14/2023  | 1804 | No    | SPPD23-6163    | ROCK BLVD     | ODDIE BLVD     | ODDIE BLVD & ROCK BLVD      | 2023     |
| 8/10/2023  | 1752 | No    | SPPD23-6038    | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 8/10/2023  | 1655 | No    | SPPD23-6035    | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 8/8/2023   | 1541 | No    | SPPD23-5967    | ROCK BLVD     | EB I80 ON RAMP | EB I80 ON RAMP & ROCK BLVD  | 2023     |
| 8/5/2023   | 20   | Yes   | SPPD23-5876    | ROCK BLVD     | D STREET       | D STREET & ROCK BLVD        | 2023     |
| 8/4/2023   | 1813 | Yes   | SPPD23-5867    | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 8/4/2023   | 1813 | Yes   | SPPD23-5867-P1 | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 8/4/2023   | 2250 | Yes   | SPPD23-5874    | VICTORIAN AVE | ROCK BLVD      | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 8/1/2023   | 2222 | No    | SPPD23-5766    | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 7/31/2023  | 1326 | Yes   | SPPD23-5717    | PRATER WAY    | ROCK BLVD      | PRATER WAY & ROCK BLVD      | 2023     |
| 7/26/2023  | 730  | Yes   | SPPD23-5622    | ROCK BLVD     | ROCK BLVD      | ROCK BLVD & ROCK BLVD       | 2023     |
| 7/24/2023  | 1746 | No    | SPPD23-5526    | ROCK BLVD     | G ST           | G ST & ROCK BLVD            | 2023     |
| 7/24/2023  | 1115 | Yes   | SPPD23-5513    | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 7/20/2023  | 1705 | No    | SPPD23-5424    | GREG ST       | S ROCK BLVD    | GREG ST & S ROCK BLVD       | 2023     |
| 7/12/2023  | 832  | Yes   | SPPD23-5181    | S ROCK BLVD   | GREG ST        | GREG ST & S ROCK BLVD       | 2023     |
| 7/8/2023   | 1023 | No    | SPPD23-5077    | ROCK BLVD     | I ST           | I ST & ROCK BLVD            | 2023     |
| 7/4/2023   | 1822 | No    | SPPD23-4942    | ROCK BLVD     | GREENBRAE DR   | GREENBRAE DR & ROCK BLVD    | 2023     |
| 7/3/2023   | 2152 | Yes   | SPPD23-4912    | VICTORIAN AVE | ROCK BLVD      | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 7/1/2023   | 50   | Yes   | SPPD23-4892    | ROCK BLVD     |                | Along Segment               | 2023     |
| 6/29/2023  | 1402 | No    | SPPD23-4800    | PRATER WAY    | ROCK BLVD      | PRATER WAY & ROCK BLVD      | 2023     |
| 6/27/2023  | 1118 | No    | SPPD23-4729    | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 6/24/2023  | 1946 | No    | SPPD23-4673    | GLENDALE AVE  | S ROCK BLVD    | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 6/23/2023  | 2107 | No    | SPPD23-4655    | S ROCK BLVD   | VICTORIAN AVE  | S ROCK BLVD & VICTORIAN AVE | 2023     |
| 6/21/2023  | 1705 | No    | SPPD23-4582    | F ST          | ROCK BLVD      | F ST & ROCK BLVD            | 2023     |
| 6/21/2023  | 1719 | No    | SPPD23-4583    | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 6/20/2023  | 1045 | No    | SPPD23-4545    | GLENDALE AVE  | S ROCK BLVD    | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 6/14/2023  | 1740 | No    | SPPD23-4404    | VICTORIAN AVE | ROCK BLVD      | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 6/9/2023   | 1122 | No    | SPPD23-4257    | GLENDALE AVE  | ROCK BLVD      | GLENDALE AVE & ROCK BLVD    | 2023     |
| 6/7/2023   | 1554 | Yes   | SPPD23-4206-P1 | ROCK BLVD     | PRATER WAY     | PRATER WAY & ROCK BLVD      | 2023     |
| 6/7/2023   | 1554 | Yes   | SPPD23-4206    | ROCK BLVD     | PRATER WAY     | PRATER WAY & ROCK BLVD      | 2023     |
| 6/4/2023   | 855  | No    | SPPD23-4096    | S ROCK BLVD   | I-80 EAST OFF  | I-80 EAST OFF & S ROCK BLVD | 2023     |
| 6/4/2023   | 1524 | No    | SPPD23-4105    | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 6/2/2023   | 1520 | No    | SPPD23-4051    | ROCK BLVD     | PRATER WAY     | PRATER WAY & ROCK BLVD      | 2023     |
| 6/2/2023   | 643  | No    | SPPD23-4040    | ROCK BLVD     | YORK WAY       | ROCK BLVD & YORK WAY        | 2023     |
| 5/26/2023  | 2215 | Yes   | SPPD23-3888    | VICTORIAN AVE | ROCK BLVD      | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 5/26/2023  | 1831 | No    | SPPD23-3883    | YORK WAY      | ROCK BLVD      | ROCK BLVD & YORK WAY        | 2023     |
| 5/20/2023  | 517  | Yes   | SPPD23-3709    | ROCK BLVD     | D ST           | D ST & ROCK BLVD            | 2023     |
| 5/17/2023  | 800  | Yes   | SPPD23-3629    | SBRAGIA WAY   | ROCK BLVD      | ROCK BLVD & SBRAGIA WAY     | 2023     |
| 5/16/2023  | 1006 | Yes   | SPPD23-3600    | ROCK BLVD     | GREENBRAE DR   | GREENBRAE DR & ROCK BLVD    | 2023     |
| 5/16/2023  | 1728 | No    | SPPD23-3618-P1 | ROCK BLVD     | GREENBRAE DR   | GREENBRAE DR & ROCK BLVD    | 2023     |
| 5/16/2023  | 1728 | Yes   | SPPD23-3618    | ROCK BLVD     | GREENBRAE DR   | GREENBRAE DR & ROCK BLVD    | 2023     |
| 5/15/2023  | 1744 | No    | SPPD23-3589    | ROCK BLVD     | COMMERCE ST    | COMMERCE ST & ROCK BLVD     | 2023     |
| 5/11/2023  | 1821 | No    | SPPD23-3491    | ROCK BLVD     | GREENBRAE DR   | GREENBRAE DR & ROCK BLVD    | 2023     |
| 5/10/2023  | 821  | No    | SPPD23-3453    | S ROCK BLVD   | GREG ST        | GREG ST & S ROCK BLVD       | 2023     |
| 5/8/2023   | 618  | No    | SPPD23-3398    | ROCK BLVD     | I ST           | I ST & ROCK BLVD            | 2023     |
| 5/6/2023   | 1848 | No    | SPPD23-3357    | IR80E         | S ROCK BLVD    | IR80E & S ROCK BLVD         | 2023     |
| 5/6/2023   | 1652 | No    | SPPD23-3356    | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 4/23/2023  | 1545 | No    | SPPD23-3010    | ROCK BLVD     | I ST           | I ST & ROCK BLVD            | 2023     |
| 4/17/2023  | 1645 | No    | SPPD23-2853    | S ROCK BLVD   | GLENDALE AVE   | GLENDALE AVE & S ROCK BLVD  | 2023     |
| 4/15/2023  | 1832 | No    | SPPD23-2805    | ROCK BLVD     | VICTORIAN AVE  | ROCK BLVD & VICTORIAN AVE   | 2023     |
| 4/12/2023  | 1612 | No    | SPPD23-2712    | ROCK BLVD     | C ST           | C ST & ROCK BLVD            | 2023     |
| 4/12/2023  | 1543 | No    | SPPD23-2710    | HYMER AVE     | S ROCK BLVD    | HYMER AVE & S ROCK BLVD     | 2023     |

## City of Sparks Crash Data

## Agenda Item 5.3 (B)

| Date       | Time | H & R | Case #         | Street 1      | Street 2                  | PMX_Location                            | PMX_Year |
|------------|------|-------|----------------|---------------|---------------------------|-----------------------------------------|----------|
| 3/23/2023  | 1546 | Yes   | SPPD23-2201    | VICTORIAN AVE | ROCK BLVD                 | ROCK BLVD & VICTORIAN AVE               | 2023     |
| 3/14/2023  | 925  | No    | SPPD23-1925    | ROCK BLVD     | I-80 OFFRAMP              | I-80 OFFRAMP & ROCK BLVD                | 2023     |
| 3/12/2023  | 445  | No    | SPPD23-1877    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2023     |
| 3/2/2023   | 1843 | No    | SPPD23-1636    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2023     |
| 2/27/2023  | 1553 | No    | SPPD23-1553    | S ROCK BLVD   | GREG ST                   | GREG ST & S ROCK BLVD                   | 2023     |
| 2/17/2023  | 2054 | No    | SPPD23-1330    | S ROCK BLVD   | HYMER AVE                 | HYMER AVE & S ROCK BLVD                 | 2023     |
| 2/14/2023  | 2338 | No    | SPPD23-1241    | SBRAGIA WAY   | ROCK BLVD                 | ROCK BLVD & SBRAGIA WAY                 | 2023     |
| 2/8/2023   | 1352 | No    | SPPD23-1060    | ROCK BLVD     | C ST                      | C ST & ROCK BLVD                        | 2023     |
| 1/29/2023  | 1121 | No    | SPPD23-775     | ROCK BLVD     | GREENBRAE DR              | GREENBRAE DR & ROCK BLVD                | 2023     |
| 1/29/2023  | 1223 | No    | SPPD23-777     | ROCK BLVD     | ODDIE BLVD                | ODDIE BLVD & ROCK BLVD                  | 2023     |
| 1/29/2023  | 2058 | No    | SPPD23-738     | ROCK BLVD     | PLYMOUTH WAY              | PLYMOUTH WAY & ROCK BLVD                | 2023     |
| 1/28/2023  | 720  | No    | SPPD23-740     | ROCK BLVD     | PRATER WAY                | PRATER WAY & ROCK BLVD                  | 2023     |
| 1/25/2023  | 1341 | No    | SPPD23-657     | ROCK BLVD     | GREENBRAE DR              | GREENBRAE DR & ROCK BLVD                | 2023     |
| 1/24/2023  | 953  | No    | SPPD23-617     | GREG ST       | S ROCK BLVD               | GREG ST & S ROCK BLVD                   | 2023     |
| 1/22/2023  | 600  | Yes   | SPPD23-591     | S ROCK BLVD   |                           | Along Segment                           | 2023     |
| 1/22/2023  | 1617 | No    | SPPD23-580     | S ROCK BLVD   | MILL ST                   | MILL ST & S ROCK BLVD                   | 2023     |
| 1/16/2023  | 559  | No    | SPPD23-426     | S ROCK BLVD   | GREG ST                   | GREG ST & S ROCK BLVD                   | 2023     |
| 1/12/2023  | 1815 | No    | SPPD23-313     | GREENBRAE DR  | ROCK BLVD                 | GREENBRAE DR & ROCK BLVD                | 2023     |
| 1/6/2023   | 733  | No    | SPPD23-133     | GREG ST       | S ROCK BLVD               | GREG ST & S ROCK BLVD                   | 2023     |
| 1/6/2023   | 1303 | No    | SPPD23-144     | S ROCK BLVD   | I-80 EB ON RP             | I-80 EB ON RP & S ROCK BLVD             | 2023     |
| 1/1/2023   | 1756 | No    | SPPD23-19      | ROCK BLVD     | I ST                      | I ST & ROCK BLVD                        | 2023     |
| 12/26/2022 | 1902 | No    | SPPD22-10104   | GAULT WAY     | ROCK BLVD                 | GAULT WAY & ROCK BLVD                   | 2022     |
| 12/23/2022 | 2100 | Yes   | SPPD23-50218   | S ROCK BLVD   |                           | Along Segment                           | 2022     |
| 12/9/2022  | 1248 | No    | SPPD22-9696    | ROCK BLVD     | GREENBRAE DR              | GREENBRAE DR & ROCK BLVD                | 2022     |
| 12/8/2022  | 1551 | Yes   | SPPD22-9667    | GLENDALE AVE  | S ROCK BLVD               | GLENDALE AVE & S ROCK BLVD              | 2022     |
| 12/6/2022  | 1455 | No    | SPPD22-9603    | ROCK BLVD     | GREENBRAE DR              | GREENBRAE DR & ROCK BLVD                | 2022     |
| 12/4/2022  | 1300 | No    | SPPD22-9552    | ROCK BLVD     | C ST                      | C ST & ROCK BLVD                        | 2022     |
| 12/3/2022  | 958  | Yes   | SPPD22-9524    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 11/26/2022 | 2330 | Yes   | SPPD22-9344    | ROCK BLVD     | ODDIE BLVD                | ODDIE BLVD & ROCK BLVD                  | 2022     |
| 11/24/2022 | 1307 | Yes   | SPPD22-9284    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 11/18/2022 | 1626 | No    | SPPD22-9130    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2022     |
| 11/14/2022 | 1832 | No    | SPPD22-9020    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 11/11/2022 | 2330 | No    | SPPD22-8945    | ROCK BLVD     | TYLER WAY                 | ROCK BLVD & TYLER WAY                   | 2022     |
| 11/7/2022  | 1813 | No    | SPPD22-8804    | GREENBRAE DR  | ROCK BLVD                 | GREENBRAE DR & ROCK BLVD                | 2022     |
| 11/7/2022  | 938  | No    | SPPD22-8789    | ROCK BLVD     | GREENBRAE DR              | GREENBRAE DR & ROCK BLVD                | 2022     |
| 11/1/2022  | 1422 | No    | SPPD22-8654    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2022     |
| 10/29/2022 | 2146 | No    | SPPD22-8591    | ROCK BLVD     | ODDIE BLVD                | ODDIE BLVD & ROCK BLVD                  | 2022     |
| 10/17/2022 | 1853 | No    | SPPD22-8289    | ROCK BLVD     | PLYMOUTH WAY              | PLYMOUTH WAY & ROCK BLVD                | 2022     |
| 10/12/2022 | 1745 | No    | SPPD22-8152    | ROCK BLVD     | I ST                      | I ST & ROCK BLVD                        | 2022     |
| 10/10/2022 | 913  | No    | SPPD22-8078    | ROCK BLVD     | GREENBRAE DR              | GREENBRAE DR & ROCK BLVD                | 2022     |
| 10/8/2022  | 1259 | No    | SPPD22-8027    | S ROCK BLVD   | GLENDALE AVE              | GLENDALE AVE & S ROCK BLVD              | 2022     |
| 10/8/2022  | 1750 | No    | SPPD22-8038    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2022     |
| 10/6/2022  | 1253 | No    | SPPD22-7961    | S ROCK BLVD   | FREEPORT BLVD             | FREEPORT BLVD & S ROCK BLVD             | 2022     |
| 10/5/2022  | 1723 | No    | SPPD22-7935    | S ROCK BLVD   | FREEPORT BLVD             | FREEPORT BLVD & S ROCK BLVD             | 2022     |
| 9/27/2022  | 1723 | Yes   | SPPD22-7709    | ODDIE BLVD    | ROCK BLVD                 | ODDIE BLVD & ROCK BLVD                  | 2022     |
| 9/24/2022  | 1503 | No    | SPPD22-7618    | ROCK BLVD     | COMMERCE ST               | COMMERCE ST & ROCK BLVD                 | 2022     |
| 9/23/2022  | 725  | Yes   | SPPD22-7582    | HYMER AVE     | S ROCK BLVD               | HYMER AVE & S ROCK BLVD                 | 2022     |
| 9/22/2022  | 658  | Yes   | SPPD22-7548    | 15TH ST       | ROCK BLVD                 | 15TH ST & ROCK BLVD                     | 2022     |
| 9/21/2022  | 1424 | No    | SPPD22-7535    | ROCK BLVD     | GREENBRAE DR              | GREENBRAE DR & ROCK BLVD                | 2022     |
| 9/21/2022  | 1200 | No    | SPPD22-7532    | GREG ST       | S ROCK BLVD               | GREG ST & S ROCK BLVD                   | 2022     |
| 9/21/2022  | 640  | No    | SPPD22-7526    | S ROCK BLVD   | INTERSTATE 80 E/B ON RAMP | INTERSTATE 80 E/B ON RAMP & S ROCK BLVD | 2022     |
| 9/18/2022  | 153  | No    | SPPD22-7445    | GREENBRAE DR  | ROCK BLVD                 | GREENBRAE DR & ROCK BLVD                | 2022     |
| 9/17/2022  | 12   | No    | SPPD22-7416    | S ROCK BLVD   | HYMER AVE                 | HYMER AVE & S ROCK BLVD                 | 2022     |
| 9/17/2022  | 1108 | No    | SPPD22-7428    | ROCK BLVD     | I80                       | I80 & ROCK BLVD                         | 2022     |
| 9/15/2022  | 1309 | Yes   | SPPD22-7373    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 9/13/2022  | 1745 | No    | SPPD22-7345    | GLENDALE AVE  | ROCK BLVD                 | GLENDALE AVE & ROCK BLVD                | 2022     |
| 9/4/2022   | 1229 | No    | SPPD22-7052    | ODDIE BLVD    | ROCK BLVD                 | ODDIE BLVD & ROCK BLVD                  | 2022     |
| 9/3/2022   | 1622 | No    | SPPD22-7035    | ROCK BLVD     | GLENDALE AVE              | GLENDALE AVE & ROCK BLVD                | 2022     |
| 8/27/2022  | 16   | Yes   | SPPD22-6807    | S ROCK BLVD   | GREG ST                   | GREG ST & S ROCK BLVD                   | 2022     |
| 8/26/2022  | 1810 | No    | SPPD22-6799    | GREENBRAE DR  | ROCK BLVD                 | GREENBRAE DR & ROCK BLVD                | 2022     |
| 8/17/2022  | 1209 | No    | SPPD22-6514    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2022     |
| 8/16/2022  | 1300 | Yes   | SPPD22-6500    | ROCK BLVD     | PRATER WAY                | PRATER WAY & ROCK BLVD                  | 2022     |
| 8/16/2022  | 1250 | No    | SPPD22-6494    | S ROCK BLVD   | SHABER AVE                | S ROCK BLVD & SHABER AVE                | 2022     |
| 8/13/2022  | 1634 | No    | SPPD22-6430    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 8/9/2022   | 808  | No    | SPPD22-6273    | VICTORIAN AVE | ROCK BLVD                 | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 8/6/2022   | 2230 | No    | SPPD22-6205    | ROCK BLVD     | ODDIE BLVD                | ODDIE BLVD & ROCK BLVD                  | 2022     |
| 8/3/2022   | 1844 | No    | SPPD22-6121    | ROCK BLVD     | F ST                      | F ST & ROCK BLVD                        | 2022     |
| 8/3/2022   | 2328 | No    | SPPD22-6126    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 8/2/2022   | 1436 | Yes   | SPPD22-6077    | S ROCK BLVD   | GLENDALE AVE              | GLENDALE AVE & S ROCK BLVD              | 2022     |
| 8/2/2022   | 2036 | No    | SPPD22-6091    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2022     |
| 7/28/2022  | 1503 | No    | SPPD22-5939    | ODDIE BLVD    | ROCK BLVD                 | ODDIE BLVD & ROCK BLVD                  | 2022     |
| 7/19/2022  | 1632 | No    | SPPD22-5666    | GREG ST       | S ROCK BLVD               | GREG ST & S ROCK BLVD                   | 2022     |
| 7/19/2022  | 1635 | No    | SPPD22-5667    | YORK WAY      | ROCK BLVD                 | ROCK BLVD & YORK WAY                    | 2022     |
| 7/13/2022  | 1548 | No    | SPPD22-5501    | ROCK BLVD     | I80 WB ON RAMP            | I80 WB ON RAMP & ROCK BLVD              | 2022     |
| 7/10/2022  | 946  | No    | SPPD22-5386    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 7/8/2022   | 959  | No    | SPPD22-5333    | ROCK BLVD     | ODDIE BLVD                | ODDIE BLVD & ROCK BLVD                  | 2022     |
| 7/3/2022   | 1213 | No    | SPPD22-5179    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 7/2/2022   | 418  | No    | SPPD22-5158    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2022     |
| 7/1/2022   | 752  | Yes   | SPPD22-5139    | S ROCK BLVD   | GLENDALE AVE              | GLENDALE AVE & S ROCK BLVD              | 2022     |
| 6/26/2022  | 1502 | No    | SPPD22-4993    | GAULT WAY     | ROCK BLVD                 | GAULT WAY & ROCK BLVD                   | 2022     |
| 6/24/2022  | 1535 | No    | SPPD22-4947    | PRATER WAY    | ROCK BLVD                 | PRATER WAY & ROCK BLVD                  | 2022     |
| 6/21/2022  | 1453 | No    | SPPD22-4870    | ROCK BLVD     | PRATER WAY                | PRATER WAY & ROCK BLVD                  | 2022     |
| 6/21/2022  | 257  | No    | SPPD22-4857    | ROCK BLVD     | VICTORIAN AVE             | ROCK BLVD & VICTORIAN AVE               | 2022     |
| 6/20/2022  | 1623 | No    | SPPD22-4844    | ROCK BLVD     | ODDIE BLVD                | ODDIE BLVD & ROCK BLVD                  | 2022     |
| 6/18/2022  | 1826 | No    | SPPD22-4809    | ROCK BLVD     | GREENBRAE DR              | GREENBRAE DR & ROCK BLVD                | 2022     |
| 6/16/2022  | 1227 | No    | SPPD22-4763-P1 | GLENDALE AVE  | ROCK BLVD                 | GLENDALE AVE & ROCK BLVD                | 2022     |
| 6/16/2022  | 1227 | No    | SPPD22-4763    | GLENDALE AVE  | ROCK BLVD                 | GLENDALE AVE & ROCK BLVD                | 2022     |
| 6/16/2022  | 2111 | No    | SPPD22-4774    | GREG ST       | ROCK BLVD                 | GREG ST & ROCK BLVD                     | 2022     |

## City of Sparks Crash Data

## Agenda Item 5.3 (B)

| Date       | Time | H & R | Case #          | Street 1      | Street 2      | PMX_Location                | PMX_Year |
|------------|------|-------|-----------------|---------------|---------------|-----------------------------|----------|
| 6/13/2022  | 1601 | No    | SPPD22-4694     | PROSPECT AVE  | ROCK BLVD     | PROSPECT AVE & ROCK BLVD    | 2022     |
| 6/10/2022  | 1616 | No    | SPPD22-4600     | S ROCK BLVD   | HYMER AVE     | HYMER AVE & S ROCK BLVD     | 2022     |
| 6/10/2022  | 334  | No    | SPPD22-4578     | ROCK BLVD     | PRATER WAY    | PRATER WAY & ROCK BLVD      | 2022     |
| 6/3/2022   | 1110 | Yes   | SPPD22-4350     | S ROCK BLVD   | GLENDALE AVE  | GLENDALE AVE & S ROCK BLVD  | 2022     |
| 6/3/2022   | 1455 | No    | SPPD22-4356     | ROCK BLVD     | GREENBRAE DR  | GREENBRAE DR & ROCK BLVD    | 2022     |
| 5/31/2022  | 800  | Yes   | SPPD22-4252     | HYMER AVE     | S ROCK BLVD   | HYMER AVE & S ROCK BLVD     | 2022     |
| 5/28/2022  | 210  | Yes   | SPPD22-4182     | S ROCK BLVD   | GLENDALE AVE  | GLENDALE AVE & S ROCK BLVD  | 2022     |
| 5/27/2022  | 1520 | Yes   | SPPD22-4167     | ROCK BLVD     | HYMER AVE     | HYMER AVE & ROCK BLVD       | 2022     |
| 5/27/2022  | 2146 | Yes   | SPPD22-4174     | ROCK BLVD     | VANCE WAY     | ROCK BLVD & VANCE WAY       | 2022     |
| 5/26/2022  | 1530 | No    | SPPD22-51006    | PRATER WAY    | ROCK BLVD     | PRATER WAY & ROCK BLVD      | 2022     |
| 5/26/2022  | 1530 | No    | SPPD22-51006-P1 | PRATER WAY    | ROCK BLVD     | PRATER WAY & ROCK BLVD      | 2022     |
| 5/24/2022  | 1442 | No    | SPPD22-4062     | S ROCK BLVD   | SHABER AVE    | S ROCK BLVD & SHABER AVE    | 2022     |
| 5/22/2022  | 1709 | No    | SPPD22-4009     | ROCK BLVD     | VANCE WAY     | ROCK BLVD & VANCE WAY       | 2022     |
| 5/21/2022  | 1327 | No    | SPPD22-3988     | ROCK BLVD     | H ST          | H ST & ROCK BLVD            | 2022     |
| 5/21/2022  | 1004 | No    | SPPD22-3987     | ODDIE BLVD    | ROCK BLVD     | ODDIE BLVD & ROCK BLVD      | 2022     |
| 5/20/2022  | 855  | No    | SPPD22-3955     | S ROCK BLVD   | HYMER AVE     | HYMER AVE & S ROCK BLVD     | 2022     |
| 5/18/2022  | 2226 | No    | SPPD22-3911     | S ROCK BLVD   | GLENDALE AVE  | GLENDALE AVE & S ROCK BLVD  | 2022     |
| 5/17/2022  | 1543 | Yes   | SPPD22-3873-P1  | ROCK BLVD     | F ST          | F ST & ROCK BLVD            | 2022     |
| 5/17/2022  | 1543 | Yes   | SPPD22-3873     | ROCK BLVD     | F ST          | F ST & ROCK BLVD            | 2022     |
| 5/14/2022  | 930  | Yes   | SPPD22-50939    | ROCK BLVD     | 15TH ST       | 15TH ST & ROCK BLVD         | 2022     |
| 5/11/2022  | 844  | No    | SPPD22-3681     | ROCK BLVD     | PRATER WAY    | PRATER WAY & ROCK BLVD      | 2022     |
| 5/5/2022   | 1654 | No    | SPPD22-3532     | ODDIE BLVD    | ROCK BLVD     | ODDIE BLVD & ROCK BLVD      | 2022     |
| 4/30/2022  | 2141 | Yes   | SPPD22-3398-P1  | S ROCK BLVD   | HYMER AVE     | HYMER AVE & S ROCK BLVD     | 2022     |
| 4/30/2022  | 2141 | Yes   | SPPD22-3398     | S ROCK BLVD   | HYMER AVE     | HYMER AVE & S ROCK BLVD     | 2022     |
| 4/27/2022  | 717  | No    | SPPD22-3291     | ROCK BLVD     | VICTORIAN AVE | ROCK BLVD & VICTORIAN AVE   | 2022     |
| 4/26/2022  | 800  | No    | SPPDTEST        | ROCK BLVD     | COMMERCE ST   | COMMERCE ST & ROCK BLVD     | 2022     |
| 4/26/2022  | 1345 | Yes   | SPPD22-3276-P1  | GREG ST       | S ROCK BLVD   | GREG ST & S ROCK BLVD       | 2022     |
| 4/26/2022  | 1345 | Yes   | SPPD22-3276     | GREG ST       | S ROCK BLVD   | GREG ST & S ROCK BLVD       | 2022     |
| 4/26/2022  | 800  | No    | SPPDTEST        | ROCK BLVD     | ODDIE BLVD    | ODDIE BLVD & ROCK BLVD      | 2022     |
| 4/25/2022  | 1804 | Yes   | SPPD22-3256-P1  | ROCK BLVD     | IR80 W        | IR80 W & ROCK BLVD          | 2022     |
| 4/25/2022  | 1804 | Yes   | SPPD22-3256     | ROCK BLVD     | IR80 W        | IR80 W & ROCK BLVD          | 2022     |
| 4/19/2022  | 1730 | Yes   | SPPD22-3090     | ROCK BLVD     | H ST          | H ST & ROCK BLVD            | 2022     |
| 4/14/2022  | 947  | No    | SPPD22-2923     | ROCK BLVD     | GAULT WAY     | GAULT WAY & ROCK BLVD       | 2022     |
| 4/3/2022   | 1624 | Yes   | SPPD22-2614     | ODDIE BLVD    | ROCK BLVD     | ODDIE BLVD & ROCK BLVD      | 2022     |
| 4/1/2022   | 1038 | No    | SPPD22-2548     | ROCK BLVD     | I ST          | I ST & ROCK BLVD            | 2022     |
| 3/28/2022  | 945  | No    | SPPD22-2430     | PRATER WAY    | ROCK BLVD     | PRATER WAY & ROCK BLVD      | 2022     |
| 3/28/2022  | 711  | No    | SPPD22-2428     | VICTORIAN AVE | ROCK BLVD     | ROCK BLVD & VICTORIAN AVE   | 2022     |
| 3/25/2022  | 1529 | No    | SPPD22-2355     | ROCK BLVD     | IR80 W        | IR80 W & ROCK BLVD          | 2022     |
| 3/22/2022  | 1412 | No    | SPPD22-2255     | ODDIE BLVD    | ROCK BLVD     | ODDIE BLVD & ROCK BLVD      | 2022     |
| 3/22/2022  | 1412 | No    | SPPD22-2055-P1  | ODDIE BLVD    | ROCK BLVD     | ODDIE BLVD & ROCK BLVD      | 2022     |
| 3/21/2022  | 837  | Yes   | SPPD22-2208     | S ROCK BLVD   | GLENDALE AVE  | GLENDALE AVE & S ROCK BLVD  | 2022     |
| 3/15/2022  | 953  | No    | SPPD22-2043     | ROCK BLVD     | OTHER         | OTHER & ROCK BLVD           | 2022     |
| 3/14/2022  | 1648 | No    | SPPD22-2034     | GREG ST       | S ROCK BLVD   | GREG ST & S ROCK BLVD       | 2022     |
| 3/10/2022  | 1222 | No    | SPPD22-1893     | S ROCK BLVD   | GREG ST       | GREG ST & S ROCK BLVD       | 2022     |
| 3/10/2022  | 1650 | No    | SPPD22-1902     | ROCK BLVD     | IR80 E        | IR80 E & ROCK BLVD          | 2022     |
| 3/4/2022   | 854  | No    | SPPD22-1717     | GREENBRAE DR  | ROCK BLVD     | GREENBRAE DR & ROCK BLVD    | 2022     |
| 3/3/2022   | 1606 | No    | SPPD22-1701     | ROCK BLVD     | COMMERCE ST   | COMMERCE ST & ROCK BLVD     | 2022     |
| 2/23/2022  | 813  | Yes   | SPPD22-1472     | ROCK BLVD     | RUSSELL WAY   | ROCK BLVD & RUSSELL WAY     | 2022     |
| 2/14/2022  | 1928 | Yes   | SPPD22-1237     | S ROCK BLVD   | HYMER AVE     | HYMER AVE & S ROCK BLVD     | 2022     |
| 2/14/2022  | 1928 | Yes   | SPPD22-1237-P1  | S ROCK BLVD   | HYMER AVE     | HYMER AVE & S ROCK BLVD     | 2022     |
| 2/14/2022  | 1622 | No    | SPPD22-1228     | ROCK BLVD     | UPTON WAY     | ROCK BLVD & UPTON WAY       | 2022     |
| 2/10/2022  | 1100 | Yes   | SPPD22-1177     | S ROCK BLVD   |               | Along Segment               | 2022     |
| 1/26/2022  | 759  | No    | SPPD22-665      | ROCK BLVD     | YORK WAY      | ROCK BLVD & YORK WAY        | 2022     |
| 1/25/2022  | 1235 | No    | SPPD22-648      | FREEMONT BLVD | S ROCK BLVD   | FREEMONT BLVD & S ROCK BLVD | 2022     |
| 1/24/2022  | 825  | No    | SPPD22-605      | ODDIE BLVD    | ROCK BLVD     | ODDIE BLVD & ROCK BLVD      | 2022     |
| 1/19/2022  | 649  | Yes   | SPPD22-455      | ROCK BLVD     | VICTORIAN AVE | ROCK BLVD & VICTORIAN AVE   | 2022     |
| 1/15/2022  | 1724 | No    | SPPD22-363      | ROCK BLVD     | VICTORIAN AVE | ROCK BLVD & VICTORIAN AVE   | 2022     |
| 1/6/2022   | 655  | No    | SPPD22-139      | ROCK BLVD     | VICTORIAN AVE | ROCK BLVD & VICTORIAN AVE   | 2022     |
| 1/6/2022   | 655  | No    | SPPD22-139-P1   | ROCK BLVD     | VICTORIAN AVE | ROCK BLVD & VICTORIAN AVE   | 2022     |
| 1/4/2022   | 726  | Yes   | SPPD21-50022-P1 | ROCK BLVD     | ODDIE BLVD    | ODDIE BLVD & ROCK BLVD      | 2022     |
| 1/4/2022   | 726  | Yes   | SPPD22-50022    | ROCK BLVD     | ODDIE BLVD    | ODDIE BLVD & ROCK BLVD      | 2022     |
| 1/2/2022   | 1932 | No    | SPPD22-44       | VICTORIAN AVE | ROCK BLVD     | ROCK BLVD & VICTORIAN AVE   | 2022     |
| 12/25/2021 | 1712 | No    | SPPD21-10912-P1 | GLENDALE AVE  | S ROCK BLVD   | GLENDALE AVE & S ROCK BLVD  | 2021     |
| 12/25/2021 | 1712 | No    | SPPD21-10912    | GLENDALE AVE  | S ROCK BLVD   | GLENDALE AVE & S ROCK BLVD  | 2021     |
| 12/18/2021 | 2255 | No    | SPPD21-10700    | S ROCK BLVD   | GREG ST       | GREG ST & S ROCK BLVD       | 2021     |
| 12/13/2021 | 906  | No    | SPPD21-10564    | ROCK BLVD     | ZEPHYR WAY    | ROCK BLVD & ZEPHYR WAY      | 2021     |
| 12/12/2021 | 2245 | Yes   | SPPD21-10558    | 15TH ST       | ROCK BLVD     | 15TH ST & ROCK BLVD         | 2021     |
| 12/10/2021 | 1457 | No    | SPPD21-10496    | ROCK BLVD     | TYLER WAY     | ROCK BLVD & TYLER WAY       | 2021     |
| 12/9/2021  | 1136 | No    | SPPD21-10460    | C ST          | ROCK BLVD     | C ST & ROCK BLVD            | 2021     |
| 12/9/2021  | 1547 | No    | SPPD21-10468    | S ROCK BLVD   | GREG ST       | GREG ST & S ROCK BLVD       | 2021     |
| 12/5/2021  | 945  | No    | SPPD21-10345    | GREG ST       | S ROCK BLVD   | GREG ST & S ROCK BLVD       | 2021     |
| 12/3/2021  | 2339 | Yes   | SPPD21-10294    | S ROCK BLVD   |               | Along Segment               | 2021     |
| 12/1/2021  | 345  | No    | SPPD21-10208    | ROCK BLVD     | RUSSELL WAY   | ROCK BLVD & RUSSELL WAY     | 2021     |
| 11/27/2021 | 804  | No    | SPPD21-10093    | ROCK BLVD     | OXFORD AVE    | OXFORD AVE & ROCK BLVD      | 2021     |
| 11/26/2021 | 231  | Yes   | SPPD21-10055    | GREENBRAE DR  | ROCK BLVD     | GREENBRAE DR & ROCK BLVD    | 2021     |
| 11/23/2021 | 1703 | No    | SPPD21-10001    | ROCK BLVD     | ODDIE BLVD    | ODDIE BLVD & ROCK BLVD      | 2021     |
| 11/22/2021 | 506  | Yes   | SPPD21-9955     | S ROCK BLVD   | HYMER AVE     | HYMER AVE & S ROCK BLVD     | 2021     |
| 11/20/2021 | 1134 | No    | SPPD21-9910     | GREENBRAE DR  | ROCK BLVD     | GREENBRAE DR & ROCK BLVD    | 2021     |
| 11/20/2021 | 1900 | Yes   | SPPD21-52974    | GREG ST       | S ROCK BLVD   | GREG ST & S ROCK BLVD       | 2021     |
| 11/19/2021 | 808  | No    | SPPD21-9872     | ROCK BLVD     | IR80 E        | IR80 E & ROCK BLVD          | 2021     |
| 11/15/2021 | 1000 | Yes   | SPPD21-9881     | S ROCK BLVD   |               | Along Segment               | 2021     |
| 10/31/2021 | 1857 | Yes   | SPPD21-9299     | OXFORD AVE    | ROCK BLVD     | OXFORD AVE & ROCK BLVD      | 2021     |
| 10/30/2021 | 644  | No    | SPPD21-9248     | ROCK BLVD     | C ST          | C ST & ROCK BLVD            | 2021     |
| 10/30/2021 | 2316 | No    | SPPD21-9269     | ROCK BLVD     | PRATER WAY    | PRATER WAY & ROCK BLVD      | 2021     |
| 10/28/2021 | 1823 | No    | SPPD21-9202     | ODDIE BLVD    | ROCK BLVD     | ODDIE BLVD & ROCK BLVD      | 2021     |
| 10/26/2021 | 641  | No    | SPPD21-9097     | ROCK BLVD     | C ST          | C ST & ROCK BLVD            | 2021     |
| 10/25/2021 | 802  | Yes   | SPPD21-9066     | ROCK BLVD     | VICTORIAN AVE | ROCK BLVD & VICTORIAN AVE   | 2021     |
| 10/22/2021 | 1444 | No    | SPPD21-8993     | ROCK BLVD     | IR80 E        | IR80 E & ROCK BLVD          | 2021     |



## City of Sparks Crash Data

## Agenda Item 5.3 (B)

| Date       | Time | H & R | Case #         | Street 1              | Street 2              | PMX_Location                       | PMX_Year |
|------------|------|-------|----------------|-----------------------|-----------------------|------------------------------------|----------|
| 10/21/2021 | 1505 | No    | SPPD21-8969    | ROCK BLVD             | I ST                  | I ST & ROCK BLVD                   | 2021     |
| 10/20/2021 | 1238 | No    | SPPD21-8921    | ROCK BLVD             | HYMER AV              | HYMER AV & ROCK BLVD               | 2021     |
| 10/20/2021 | 902  | No    | SPPD21-8913    | IR80 E TO S ROCK BLVD | ROCK BLVD             | IR80 E TO S ROCK BLVD & ROCK BLVD  | 2021     |
| 10/19/2021 | 819  | No    | SPPD21-8873    | VICTORIAN AVE         | ROCK BLVD             | ROCK BLVD & VICTORIAN AVE          | 2021     |
| 10/16/2021 | 1345 | Yes   | SPPD21-8806    | S ROCK BLVD           |                       | Along Segment                      | 2021     |
| 10/14/2021 | 319  | No    | SPPD21-8736    | ROCK BLVD             | IR80 E                | IR80 E & ROCK BLVD                 | 2021     |
| 10/11/2021 | 1945 | No    | SPPD21-8673    | S ROCK BLVD           | GREG ST               | GREG ST & S ROCK BLVD              | 2021     |
| 10/1/2021  | 827  | No    | SPPD21-8324    | ROCK BLVD             | GREENBRAE DR          | GREENBRAE DR & ROCK BLVD           | 2021     |
| 9/29/2021  | 1528 | No    | SPPD21-8278    | ROCK BLVD             | GLENDALE AVE          | GLENDALE AVE & ROCK BLVD           | 2021     |
| 9/24/2021  | 623  | No    | SPPD21-8132    | ODDIE BLVD            | ROCK BLVD             | ODDIE BLVD & ROCK BLVD             | 2021     |
| 9/23/2021  | 1854 | No    | SPPD21-8122-P1 | VICTORIAN AVE         | ROCK BLVD             | ROCK BLVD & VICTORIAN AVE          | 2021     |
| 9/23/2021  | 1854 | No    | SPPD21-8122    | VICTORIAN AVE         | ROCK BLVD             | ROCK BLVD & VICTORIAN AVE          | 2021     |
| 9/21/2021  | 1616 | No    | SPPD21-8060    | S ROCK BLVD           | SR659 TO S ROCK BLVD  | S ROCK BLVD & SR659 TO S ROCK BLVD | 2021     |
| 9/20/2021  | 1801 | No    | SPPD21-8033    | GREG ST               | S ROCK BLVD           | GREG ST & S ROCK BLVD              | 2021     |
| 9/16/2021  | 1620 | No    | SPPD21-7900    | PRATER WAY            | ROCK BLVD             | PRATER WAY & ROCK BLVD             | 2021     |
| 9/14/2021  | 1317 | No    | SPPD21-7835    | ROCK BLVD             | E PRATER WAY          | E PRATER WAY & ROCK BLVD           | 2021     |
| 9/14/2021  | 704  | No    | SPPD21-7829    | S ROCK BLVD           | SHABER AVE            | S ROCK BLVD & SHABER AVE           | 2021     |
| 9/11/2021  | 1656 | No    | SPPD21-7763    | IR80 W TO ROCK BLVD   | ROCK BLVD             | IR80 W TO ROCK BLVD & ROCK BLVD    | 2021     |
| 9/7/2021   | 1809 | No    | SPPD21-7644    | S ROCK BLVD           | HYMER AVE             | HYMER AVE & S ROCK BLVD            | 2021     |
| 9/3/2021   | 1550 | No    | SPPD21-7486    | S ROCK BLVD           | HYMER AVE             | HYMER AVE & S ROCK BLVD            | 2021     |
| 8/28/2021  | 2308 | No    | SPPD21-7317    | S ROCK BLVD           | HYMER AVE             | HYMER AVE & S ROCK BLVD            | 2021     |
| 8/28/2021  | 2216 | No    | SPPD21-7316    | ROCK BLVD             | I ST                  | I ST & ROCK BLVD                   | 2021     |
| 8/23/2021  | 1538 | No    | SPPD21-7167    | ROCK BLVD             | GAULT WAY             | GAULT WAY & ROCK BLVD              | 2021     |
| 8/21/2021  | 7    | No    | SPPD21-7105    | VICTORIAN AVE         | ROCK BLVD             | ROCK BLVD & VICTORIAN AVE          | 2021     |
| 8/20/2021  | 737  | No    | SPPD21-7083    | S ROCK BLVD           | GLENDALE AVE          | GLENDALE AVE & S ROCK BLVD         | 2021     |
| 8/16/2021  | 38   | Yes   | SPPD21-6946    | S ROCK BLVD           | GLENDALE AVE          | GLENDALE AVE & S ROCK BLVD         | 2021     |
| 8/6/2021   | 2253 | No    | SPPD21-6653    | ROCK BLVD             | PRATER WAY            | PRATER WAY & ROCK BLVD             | 2021     |
| 8/3/2021   | 1250 | No    | SPPD21-6529    | S ROCK BLVD           | HYMER AVE             | HYMER AVE & S ROCK BLVD            | 2021     |
| 7/27/2021  | 1743 | No    | SPPD21-6318    | ROCK BLVD             | VICTORIAN AV          | ROCK BLVD & VICTORIAN AV           | 2021     |
| 7/22/2021  | 1715 | Yes   | SPPD21-6287-P1 | ROCK BLVD             | N MCCARRAN BLVD       | N MCCARRAN BLVD & ROCK BLVD        | 2021     |
| 7/22/2021  | 1715 | Yes   | SPPD21-6287    | ROCK BLVD             | N MCCARRAN BLVD       | N MCCARRAN BLVD & ROCK BLVD        | 2021     |
| 7/21/2021  | 1500 | No    | SPPD21-6118    | ROCK BLVD             | YORK WAY              | ROCK BLVD & YORK WAY               | 2021     |
| 7/19/2021  | 748  | No    | SPPD21-6047    | ROCK BLVD             | SHABER AV             | ROCK BLVD & SHABER AV              | 2021     |
| 7/14/2021  | 421  | No    | SPPD21-5895    | S ROCK BLVD           | HYMER AVE             | HYMER AVE & S ROCK BLVD            | 2021     |
| 7/7/2021   | 1624 | No    | SPPD21-5690    | GREG ST               | S ROCK BLVD           | GREG ST & S ROCK BLVD              | 2021     |
| 7/4/2021   | 711  | Yes   | SPPD21-5580    | IR80 E TO S ROCK BLVD | S ROCK BL             | IR80 E TO S ROCK BLVD & S ROCK BL  | 2021     |
| 7/3/2021   | 2232 | Yes   | SPPD21-5569    | ROCK BLVD             | IR80 E TO S ROCK BLVD | IR80 E TO S ROCK BLVD & ROCK BLVD  | 2021     |
| 7/2/2021   | 926  | No    | SPPD21-5510    | GREENBRAE DR          | ROCK BLVD             | GREENBRAE DR & ROCK BLVD           | 2021     |
| 6/30/2021  | 1151 | No    | SPPD21-5423    | ROCK BLVD             | HYMER AV              | HYMER AV & ROCK BLVD               | 2021     |
| 6/30/2021  | 846  | No    | SPPD21-5415    | ROCK BLVD             | ODDIE BLVD            | ODDIE BLVD & ROCK BLVD             | 2021     |
| 6/30/2021  | 1540 | No    | SPPD21-5435    | S ROCK BLVD           | PITTMAN AVE           | PITTMAN AVE & S ROCK BLVD          | 2021     |
| 6/20/2021  | 2152 | No    | SPPD21-5126    | RUSSELL WAY           | ROCK BLVD             | ROCK BLVD & RUSSELL WAY            | 2021     |
| 6/19/2021  | 2025 | Yes   | SPPD21-5090    | S ROCK BLVD           | UNSPECIFIED           | S ROCK BLVD & UNSPECIFIED          | 2021     |
| 6/18/2021  | 1700 | No    | SPPD21-5059    | ROCK BLVD             | HYMER AV              | HYMER AV & ROCK BLVD               | 2021     |
| 6/16/2021  | 1822 | No    | SPPD21-4993    | RUSSELL WAY           | ROCK BLVD             | ROCK BLVD & RUSSELL WAY            | 2021     |
| 6/15/2021  | 1245 | Yes   | SPPD21-5049    | S ROCK BLVD           |                       | Along Segment                      | 2021     |
| 6/10/2021  | 1309 | No    | SPPD21-4802    | ROCK BLVD             | IR80 E                | IR80 E & ROCK BLVD                 | 2021     |
| 6/9/2021   | 1201 | Yes   | SPPD21-4773    | ROCK BLVD             | GLENDALE AVE          | GLENDALE AVE & ROCK BLVD           | 2021     |
| 6/8/2021   | 1742 | Yes   | SPPD21-4753    | S ROCK BLVD           | GREG ST               | GREG ST & S ROCK BLVD              | 2021     |
| 6/7/2021   | 1322 | No    | SPPD21-4719    | ROCK BLVD             | VICTORIAN AVE         | ROCK BLVD & VICTORIAN AVE          | 2021     |
| 6/3/2021   | 1730 | No    | SPPD21-4597    | IR80 E                | ROCK BLVD             | IR80 E & ROCK BLVD                 | 2021     |
| 5/29/2021  | 458  | Yes   | SPPD21-4413    | D STREET              | ROCK BLVD             | D STREET & ROCK BLVD               | 2021     |
| 5/28/2021  | 1120 | No    | SPPD21-4384    | ROCK BLVD             | F ST                  | F ST & ROCK BLVD                   | 2021     |
| 5/27/2021  | 1334 | Yes   | SPPD21-4354    | ROCK BLVD             |                       | Along Segment                      | 2021     |
| 5/27/2021  | 1334 | Yes   | SPPD21-4354-P1 | ROCK BLVD             |                       | Along Segment                      | 2021     |
| 5/27/2021  | 2048 | Yes   | SPPD21-4368-P1 | S ROCK BLVD           | ROCK BLVD             | ROCK BLVD & S ROCK BLVD            | 2021     |
| 5/27/2021  | 2048 | Yes   | SPPD21-4368    | S ROCK BLVD           | ROCK BLVD             | ROCK BLVD & S ROCK BLVD            | 2021     |
| 5/22/2021  | 2219 | Yes   | SPPD21-4209    | ROCK BLVD             | I ST                  | I ST & ROCK BLVD                   | 2021     |
| 5/19/2021  | 1857 | No    | SPPD21-4121    | ROCK BLVD             | GAULT WY              | GAULT WY & ROCK BLVD               | 2021     |
| 5/18/2021  | 1625 | Yes   | SPPD21-4076    | ODDIE BLVD            | ROCK BLVD             | ODDIE BLVD & ROCK BLVD             | 2021     |
| 5/18/2021  | 1625 | Yes   | SPPD21-4076-P1 | ODDIE BLVD            | ROCK BLVD             | ODDIE BLVD & ROCK BLVD             | 2021     |
| 5/17/2021  | 1717 | No    | SPPD21-4039    | S ROCK BLVD           | HYMER AVE             | HYMER AVE & S ROCK BLVD            | 2021     |
| 5/11/2021  | 653  | No    | SPPD21-3824    | ODDIE BLVD            | ROCK BLVD             | ODDIE BLVD & ROCK BLVD             | 2021     |
| 5/10/2021  | 2101 | No    | SPPD21-3818    | ROCK BLVD             | ROCK BL TO IR80 W     | ROCK BL TO IR80 W & ROCK BLVD      | 2021     |
| 5/5/2021   | 1735 | Yes   | SPPD21-3810-P1 | S ROCK BLVD           |                       | Along Segment                      | 2021     |
| 5/5/2021   | 1735 | Yes   | SPPD21-3810    | S ROCK BLVD           |                       | Along Segment                      | 2021     |
| 5/4/2021   | 1524 | No    | SPPD21-3617    | ROCK BLVD             | VICTORIAN AVE         | ROCK BLVD & VICTORIAN AVE          | 2021     |
| 5/1/2021   | 328  | No    | SPPD21-3504    | ROCK BLVD             | ROCK BL TO IR80 W     | ROCK BL TO IR80 W & ROCK BLVD      | 2021     |
| 4/23/2021  | 2043 | Yes   | SPPD21-3282    | S ROCK BLVD           | HYMER AVE             | HYMER AVE & S ROCK BLVD            | 2021     |
| 4/20/2021  | 655  | No    | SPPD21-3145    | ROCK BLVD             | SHABER AVE            | ROCK BLVD & SHABER AVE             | 2021     |
| 4/16/2021  | 2015 | Yes   | SPPD21-3353    | S ROCK BLVD           |                       | Along Segment                      | 2021     |
| 4/11/2021  | 1039 | No    | SPPD21-2894    | ROCK BLVD             | VICTORIAN AVE         | ROCK BLVD & VICTORIAN AVE          | 2021     |
| 4/10/2021  | 1521 | No    | SPPD21-2875    | PRATER WAY            | ROCK BLVD             | PRATER WAY & ROCK BLVD             | 2021     |
| 4/9/2021   | 1211 | No    | SPPD21-2838    | ROCK BLVD             | COMMERCE ST           | COMMERCE ST & ROCK BLVD            | 2021     |
| 4/6/2021   | 1724 | No    | SPPD21-2753    | ROCK BLVD             | ODDIE BLVD            | ODDIE BLVD & ROCK BLVD             | 2021     |
| 4/1/2021   | 1752 | No    | SPPD21-2614-P1 | ROCK BLVD             | IR80 E TO S ROCK BLVD | IR80 E TO S ROCK BLVD & ROCK BLVD  | 2021     |
| 4/1/2021   | 1752 | No    | SPPD21-2614    | ROCK BLVD             | IR80 E TO S ROCK BLVD | IR80 E TO S ROCK BLVD & ROCK BLVD  | 2021     |
| 3/29/2021  | 745  | Yes   | SPPD21-50826   | ROCK BLVD             | HYMER AVE             | HYMER AVE & ROCK BLVD              | 2021     |
| 3/20/2021  | 1311 | Yes   | SPPD21-2243    | S ROCK BLVD           |                       | Along Segment                      | 2021     |
| 3/17/2021  | 2217 | Yes   | SPPD21-2157    | ROCK BLVD             |                       | Along Segment                      | 2021     |
| 3/16/2021  | 2203 | No    | SPPD21-2126    | ROCK BLVD             | G                     | G & ROCK BLVD                      | 2021     |
| 3/11/2021  | 1632 | No    | SPPD21-1942    | ROCK BLVD             | PRATER WAY            | PRATER WAY & ROCK BLVD             | 2021     |
| 3/7/2021   | 1853 | No    | SPPD21-1830-P1 | ROCK BLVD             | GREENBRAE DR          | GREENBRAE DR & ROCK BLVD           | 2021     |
| 3/7/2021   | 1853 | No    | SPPD21-1830    | ROCK BLVD             | GREENBRAE DR          | GREENBRAE DR & ROCK BLVD           | 2021     |
| 3/3/2021   | 1826 | Yes   | SPPD21-1715    | ROCK BLVD             | VANCE WAY             | ROCK BLVD & VANCE WAY              | 2021     |
| 3/2/2021   | 1306 | No    | SPPD21-1673    | ROCK BLVD             | GREG ST               | GREG ST & ROCK BLVD                | 2021     |
| 2/28/2021  | 1905 | Yes   | SPPD21-1632    | PRATER WAY            | ROCK BLVD             | PRATER WAY & ROCK BLVD             | 2021     |
| 2/20/2021  | 801  | No    | SPPD21-1378    | ROCK BLVD             | ODDIE BLVD            | ODDIE BLVD & ROCK BLVD             | 2021     |

# City of Sparks Crash Data

# Agenda Item 5.3 (B)

| Date       | Time | H & R | Case #         | Street 1      | Street 2              | PMX_Location                      | PMX_Year |
|------------|------|-------|----------------|---------------|-----------------------|-----------------------------------|----------|
| 2/19/2021  | 1015 | Yes   | SPPD21-1356-P1 | GLENDALE AVE  | S ROCK BLVD           | GLENDALE AVE & S ROCK BLVD        | 2021     |
| 2/19/2021  | 1015 | Yes   | SPPD21-1356    | GLENDALE AVE  | S ROCK BLVD           | GLENDALE AVE & S ROCK BLVD        | 2021     |
| 2/15/2021  | 1307 | No    | SPPD21-1231    | ROCK BLVD     | F ST                  | F ST & ROCK BLVD                  | 2021     |
| 2/10/2021  | 1029 | No    | SPPD21-1072    | VICTORIAN AVE | ROCK BLVD             | ROCK BLVD & VICTORIAN AVE         | 2021     |
| 2/2/2021   | 1630 | Yes   | SPPD21-852     | ROCK BLVD     | AVENUE OF THE OAKS    | AVENUE OF THE OAKS & ROCK BLVD    | 2021     |
| 1/19/2021  | 650  | No    | SPPD21-458     | ROCK BLVD     | VICTORIAN AVE         | ROCK BLVD & VICTORIAN AVE         | 2021     |
| 1/16/2021  | 1038 | No    | SPPD21-388     | ROCK BLVD     | PRATER WAY            | PRATER WAY & ROCK BLVD            | 2021     |
| 1/15/2021  | 1304 | No    | SPPD21-359     | S ROCK BLVD   | HYMER AVE             | HYMER AVE & S ROCK BLVD           | 2021     |
| 1/10/2021  | 2307 | No    | SPPD21-255     | S ROCK BLVD   | GLENDALE AVE          | GLENDALE AVE & S ROCK BLVD        | 2021     |
| 1/5/2021   | 1541 | Yes   | SPPD21-113     | S ROCK BLVD   | GREG ST               | GREG ST & S ROCK BLVD             | 2021     |
| 12/27/2020 | 1833 | Yes   | SPPD20-9635    | S ROCK BLVD   | S ROCK BLVD           | S ROCK BLVD & S ROCK BLVD         | 2020     |
| 12/16/2020 | 1229 | No    | SPPD209376     | ROCK BLVD     | PLYMOUTH WAY          | PLYMOUTH WAY & ROCK BLVD          | 2020     |
| 12/10/2020 | 2038 | No    | SPPD20-9226    | ROCK BLVD     | GREENBRAE DR          | GREENBRAE DR & ROCK BLVD          | 2020     |
| 12/4/2020  | 405  | No    | SPPD20-9070    | ROCK BLVD     | VICTORIAN AVE         | ROCK BLVD & VICTORIAN AVE         | 2020     |
| 12/1/2020  | 1733 | No    | SPPD20-9027    | PRATER WAY    | ROCK BLVD             | PRATER WAY & ROCK BLVD            | 2020     |
| 11/23/2020 | 246  | No    | SPPD20-8821    | S ROCK BLVD   | GREG ST               | GREG ST & S ROCK BLVD             | 2020     |
| 11/20/2020 | 1030 | Yes   | SPPD20-8732    | ROCK BLVD     |                       | Along Segment                     | 2020     |
| 11/20/2020 | 1215 | Yes   | SPPD20-8735    | ROCK BLVD     | GREG ST               | GREG ST & ROCK BLVD               | 2020     |
| 11/19/2020 | 1444 | No    | SPPD20-8711    | S ROCK BLVD   | PITTMAN AVE           | PITTMAN AVE & S ROCK BLVD         | 2020     |
| 11/5/2020  | 1231 | No    | SPPD20-8343    | RUSSELL WAY   | ROCK BLVD             | ROCK BLVD & RUSSELL WAY           | 2020     |
| 11/3/2020  | 1718 | Yes   | SPPD20-8290    | ROCK BLVD     | ODDIE BL              | ODDIE BL & ROCK BLVD              | 2020     |
| 10/31/2020 | 746  | No    | SPPD20-8194    | ROCK BLVD     | COMMERCE ST           | COMMERCE ST & ROCK BLVD           | 2020     |
| 10/18/2020 | 1943 | Yes   | SPPD20-7837    | ROCK BLVD     | ODDIE BLVD            | ODDIE BLVD & ROCK BLVD            | 2020     |
| 10/16/2020 | 1645 | No    | SPPD20-7968    | S ROCK BLVD   |                       | Along Segment                     | 2020     |
| 10/16/2020 | 640  | Yes   | SPPD20-7757    | ODDIE BLVD    | ROCK BLVD             | ODDIE BLVD & ROCK BLVD            | 2020     |
| 10/9/2020  | 1353 | No    | SPPD20-7564    | S ROCK BLVD   | HYMER AVE             | HYMER AVE & S ROCK BLVD           | 2020     |
| 9/30/2020  | 1906 | No    | SPPD20-7329    | ROCK BLVD     | COMMERCE ST           | COMMERCE ST & ROCK BLVD           | 2020     |
| 9/26/2020  | 2205 | No    | SPPD20-7220    | ROCK BLVD     | PITTMAN AVE           | PITTMAN AVE & ROCK BLVD           | 2020     |
| 9/25/2020  | 2305 | Yes   | SPPD20-7192    | ROCK BLVD     | IR80 E TO S ROCK BLVD | IR80 E TO S ROCK BLVD & ROCK BLVD | 2020     |
| 9/25/2020  | 1811 | Yes   | SPPD20-7181    | ROCK BLVD     | VICTORIAN AVE         | ROCK BLVD & VICTORIAN AVE         | 2020     |
| 9/19/2020  | 1337 | No    | SPPD20-7012    | ROCK BLVD     | SBRAGIA WAY           | ROCK BLVD & SBRAGIA WAY           | 2020     |
| 9/5/2020   | 1    | No    | SPPD20-6569    | ROCK BLVD     | IR80 W                | IR80 W & ROCK BLVD                | 2020     |
| 9/2/2020   | 1039 | Yes   | SPPD20-6470-P1 | ODDIE BLVD    | ROCK BLVD             | ODDIE BLVD & ROCK BLVD            | 2020     |
| 9/2/2020   | 1039 | Yes   | SPPD20-6470    | ODDIE BLVD    | ROCK BLVD             | ODDIE BLVD & ROCK BLVD            | 2020     |
| 8/22/2020  | 1942 | Yes   | SPPD20-6128    | S ROCK BLVD   | HYMER AVE             | HYMER AVE & S ROCK BLVD           | 2020     |
| 8/21/2020  | 2155 | Yes   | SPPD20-6101    | SBRAGIA WAY   | ROCK BLVD             | ROCK BLVD & SBRAGIA WAY           | 2020     |
| 8/19/2020  | 1600 | Yes   | SPPD20-6034    | GLENDALE AVE  | S ROCK BLVD           | GLENDALE AVE & S ROCK BLVD        | 2020     |
| 8/1/2020   | 807  | No    | SPPD20-5473    | ROCK BLVD     | I ST                  | I ST & ROCK BLVD                  | 2020     |
| 7/28/2020  | 830  | No    | SPPD20-5365    | S ROCK BLVD   | GREG ST               | GREG ST & S ROCK BLVD             | 2020     |
| 7/17/2020  | 1924 | No    | SPPD20-5079    | ROCK BLVD     | I ST                  | I ST & ROCK BLVD                  | 2020     |
| 7/12/2020  | 1537 | No    | SPPD20-4918    | ROCK BLVD     | GREG ST               | GREG ST & ROCK BLVD               | 2020     |
| 7/9/2020   | 1532 | No    | SPPD20-4824    | S ROCK BLVD   | GLENDALE AVE          | GLENDALE AVE & S ROCK BLVD        | 2020     |
| 7/2/2020   | 1645 | No    | SPPD20-4643    | ROCK BLVD     | FREEPORT BLVD         | FREEPORT BLVD & ROCK BLVD         | 2020     |
| 6/28/2020  | 1040 | No    | SPPD20-4533    | ODDIE BLVD    | ROCK BLVD             | ODDIE BLVD & ROCK BLVD            | 2020     |
| 6/28/2020  | 32   | Yes   | SPPD20-4522    | ROCK BLVD     | OXFORD AVE            | OXFORD AVE & ROCK BLVD            | 2020     |
| 6/25/2020  | 1528 | No    | SPPD20-4455    | S ROCK BLVD   | SHABER AVE            | S ROCK BLVD & SHABER AVE          | 2020     |
| 6/19/2020  | 1704 | No    | SPPD20-4288    | ROCK BLVD     | HYMER AV              | HYMER AV & ROCK BLVD              | 2020     |
| 6/18/2020  | 1930 | Yes   | SPPD20-4364    | PRATER WAY    | ROCK BLVD             | PRATER WAY & ROCK BLVD            | 2020     |
| 6/13/2020  | 1700 | Yes   | SPPD20-4120    | ROCK BLVD     | IR80 E TO S ROCK BLVD | IR80 E TO S ROCK BLVD & ROCK BLVD | 2020     |
| 5/29/2020  | 1725 | No    | SPPD20-3763    | S ROCK BLVD   | GLENDALE AVE          | GLENDALE AVE & S ROCK BLVD        | 2020     |
| 5/14/2020  | 1128 | No    | SPPD20-3387    | ROCK BLVD     | PRATER WAY            | PRATER WAY & ROCK BLVD            | 2020     |
| 4/23/2020  | 1114 | No    | SPPD20-2980    | ROCK BLVD     | VICTORIAN AVE         | ROCK BLVD & VICTORIAN AVE         | 2020     |

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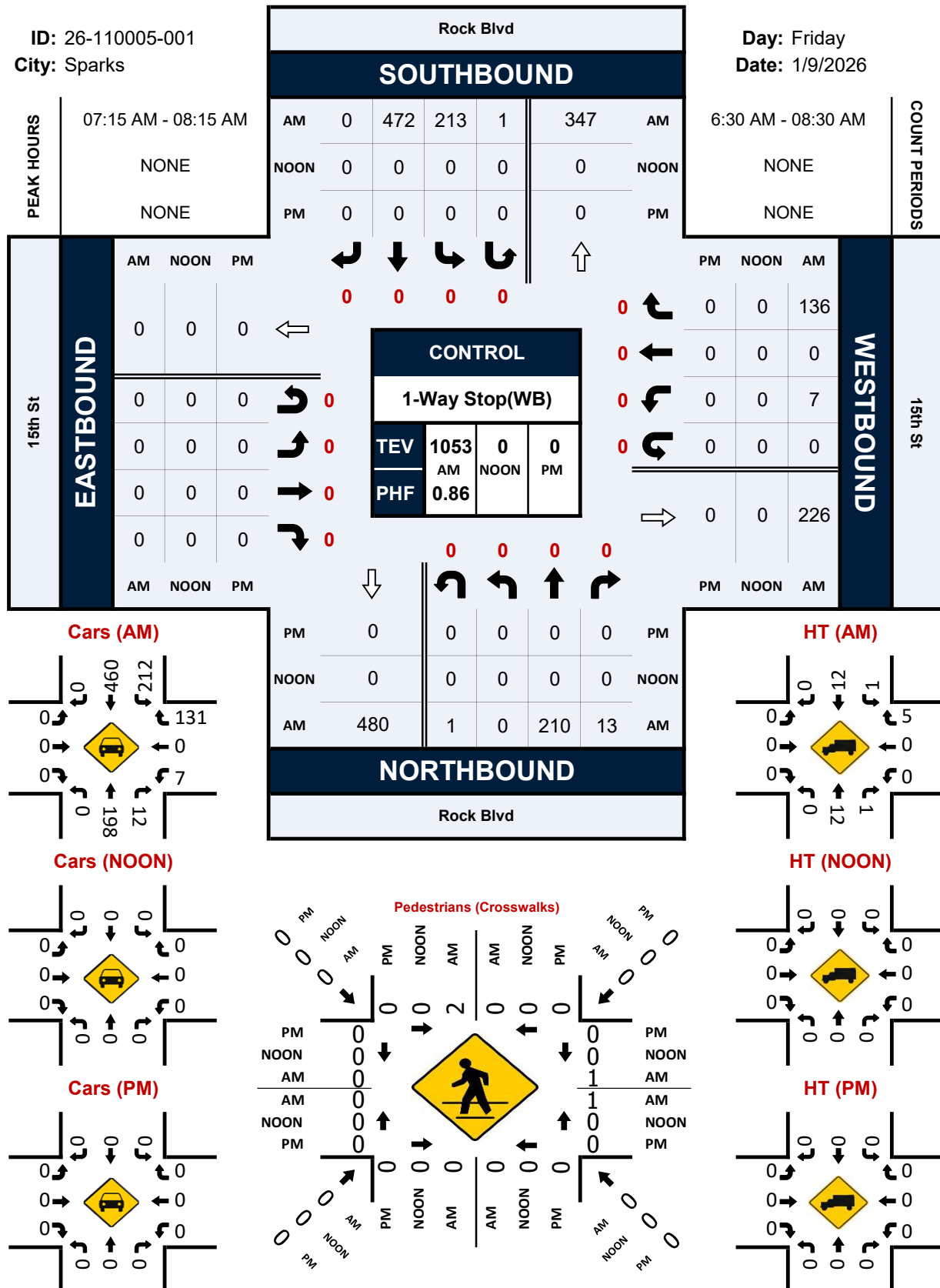
**Rock Blvd & 15th St****Peak Hour Turning Movement Count**

ID: 26-110005-001

City: Sparks

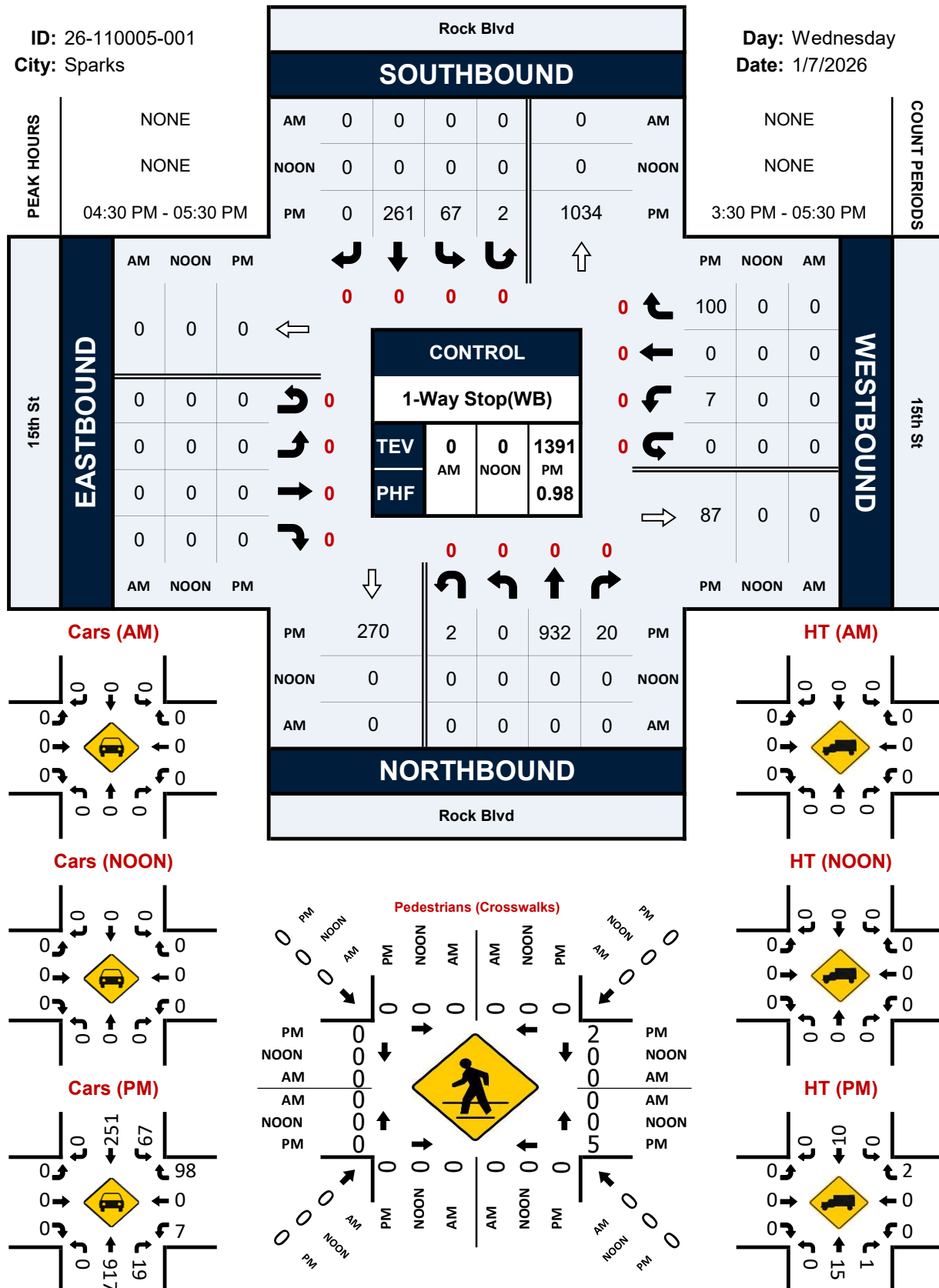
Day: Friday

Date: 1/9/2026



## Rock Blvd & 15th St

**Day:** Wednesday  
**Date:** 1/7/2026





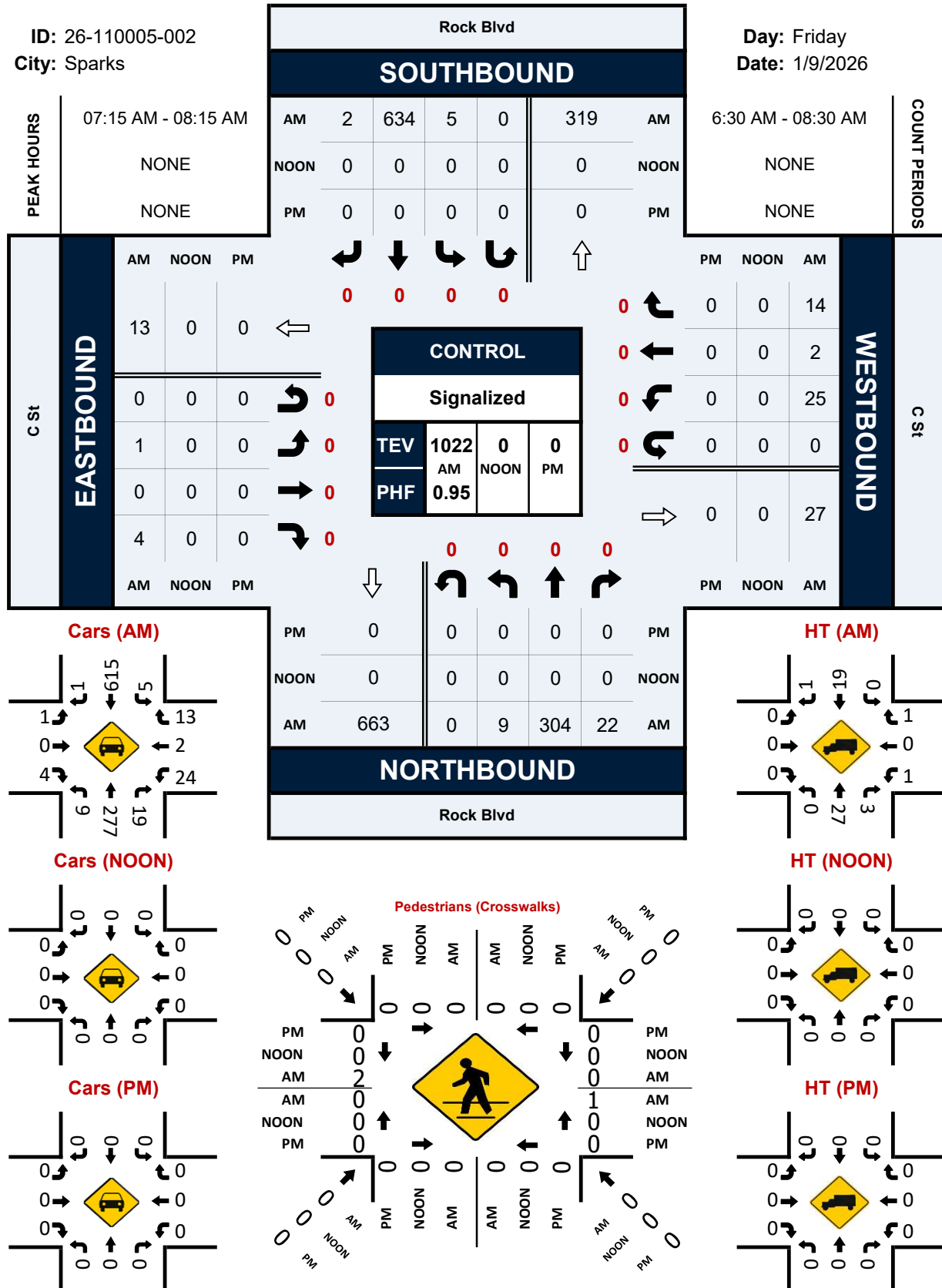
Prepared by National Data &amp; Surveying Services

## Rock Blvd &amp; C St

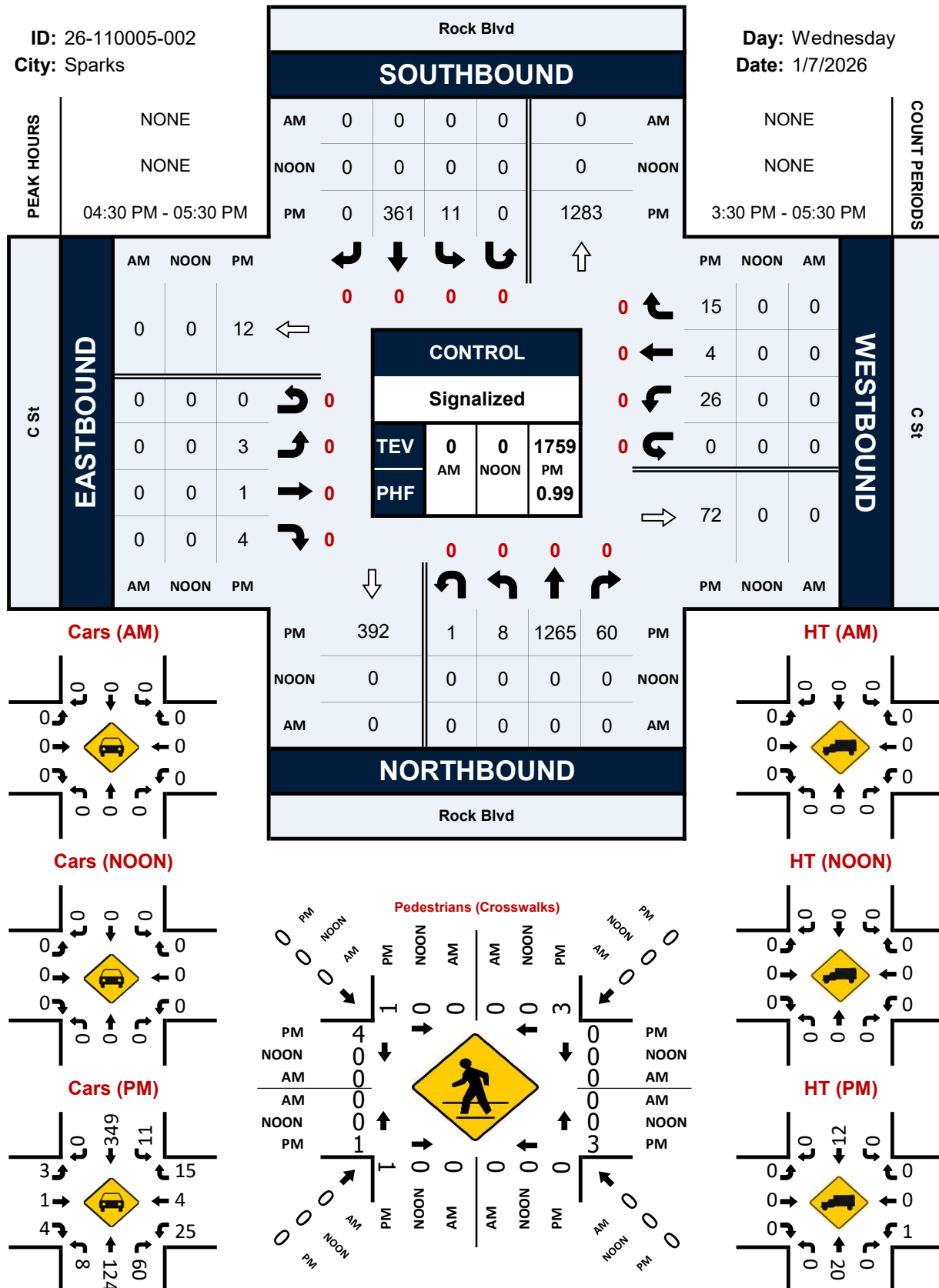
## Peak Hour Turning Movement Count

ID: 26-110005-002  
City: Sparks

Day: Friday  
Date: 1/9/2026



**Day:** Wednesday  
**Date:** 1/7/2026

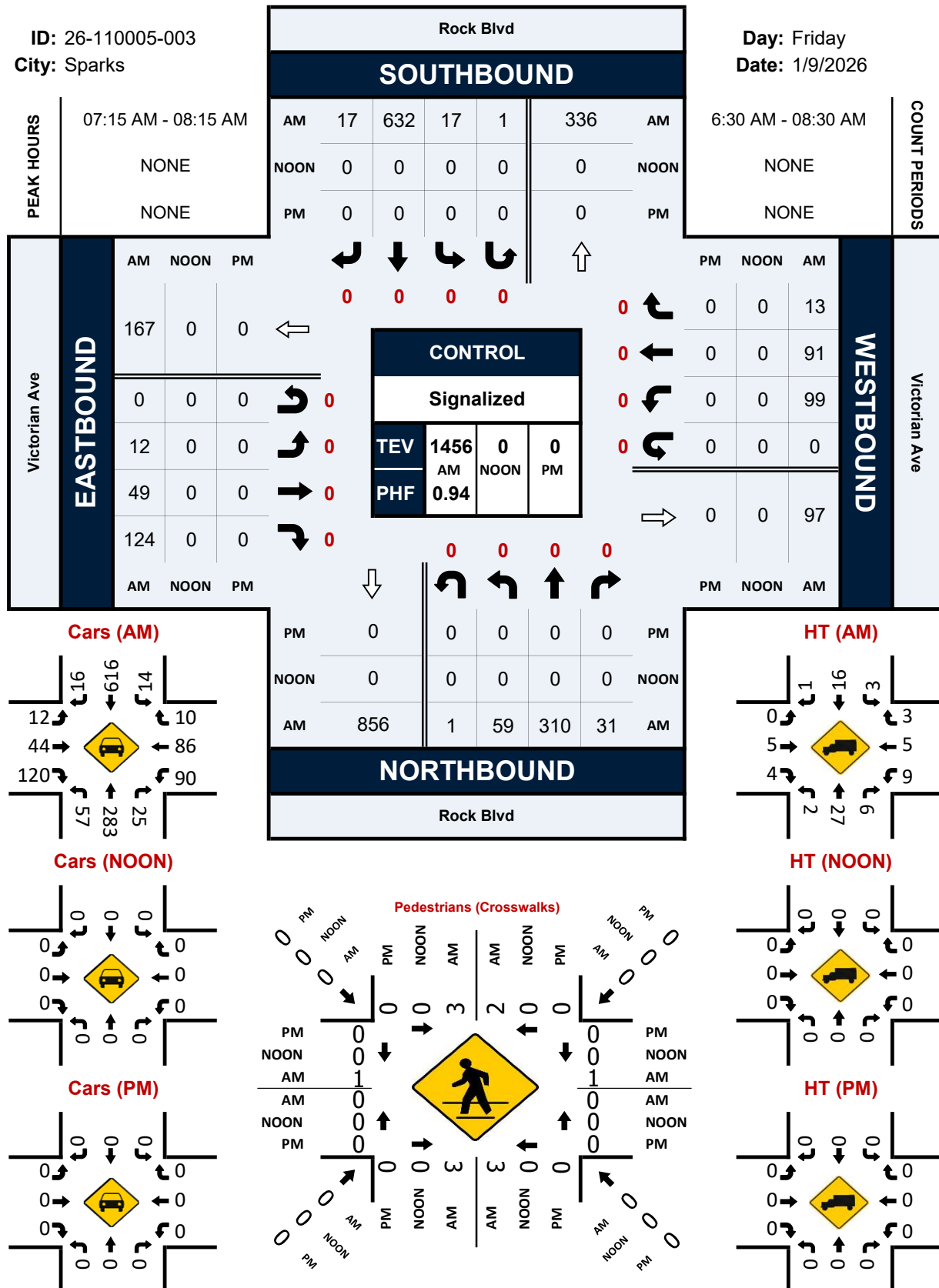


Prepared by National Data &amp; Surveying Services

**Rock Blvd & Victorian Ave****Peak Hour Turning Movement Count**

ID: 26-110005-003  
City: Sparks

Day: Friday  
Date: 1/9/2026

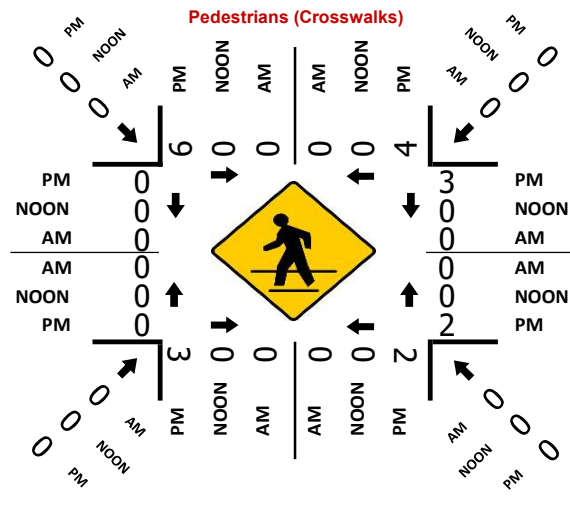
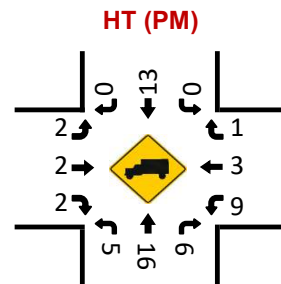
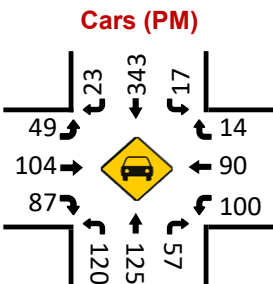
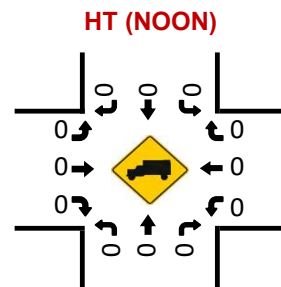
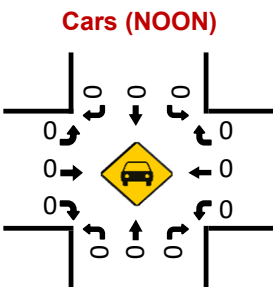
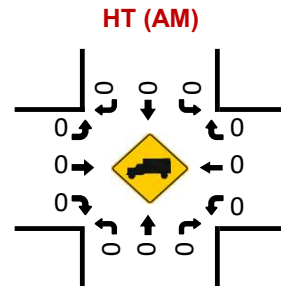
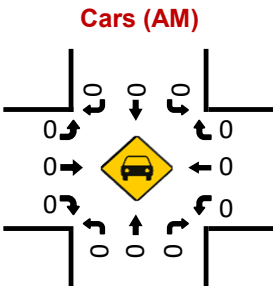
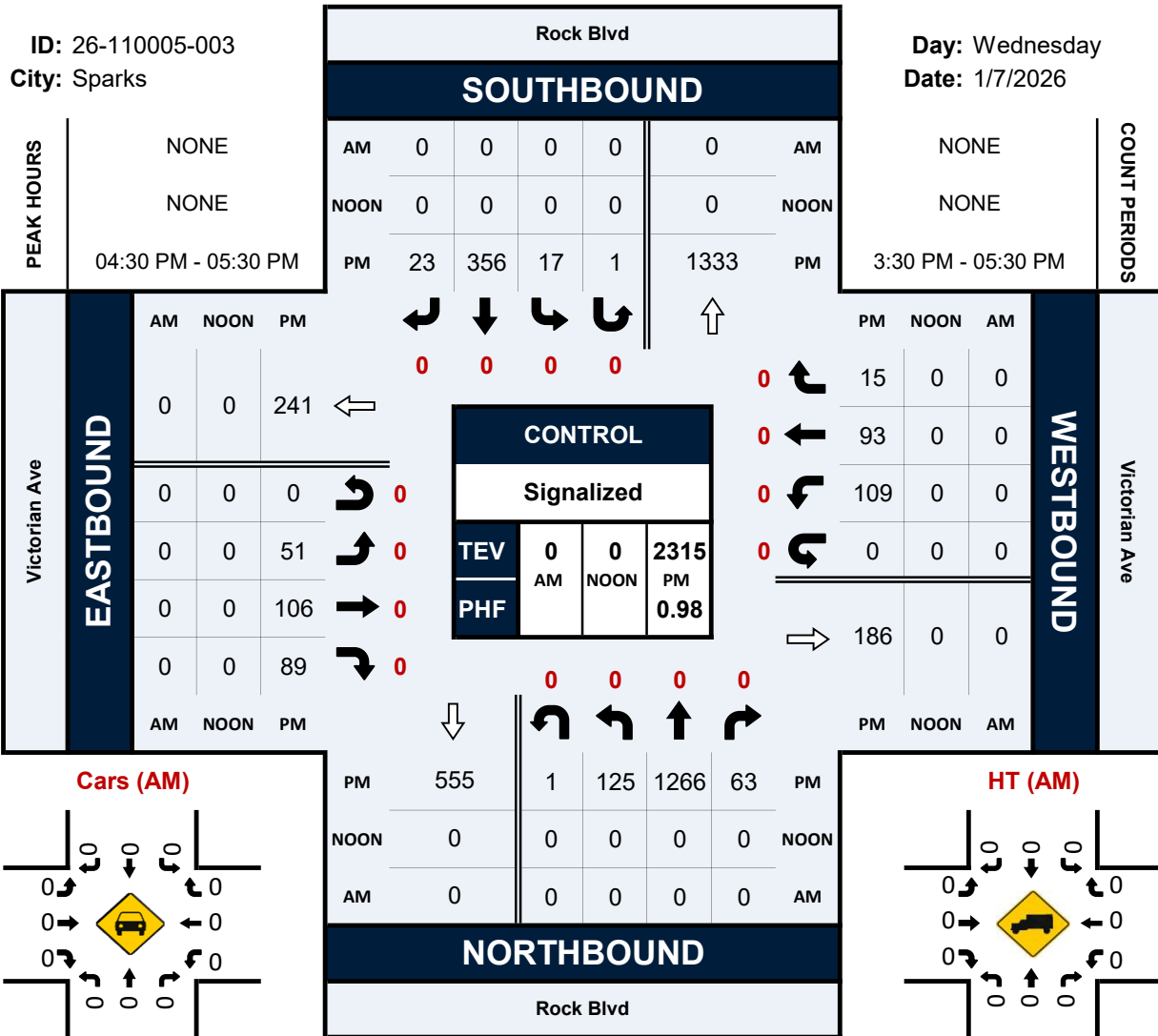


Prepared by National Data &amp; Surveying Services

**Rock Blvd & Victorian Ave****Peak Hour Turning Movement Count**

ID: 26-110005-003  
City: Sparks

Day: Wednesday  
Date: 1/7/2026





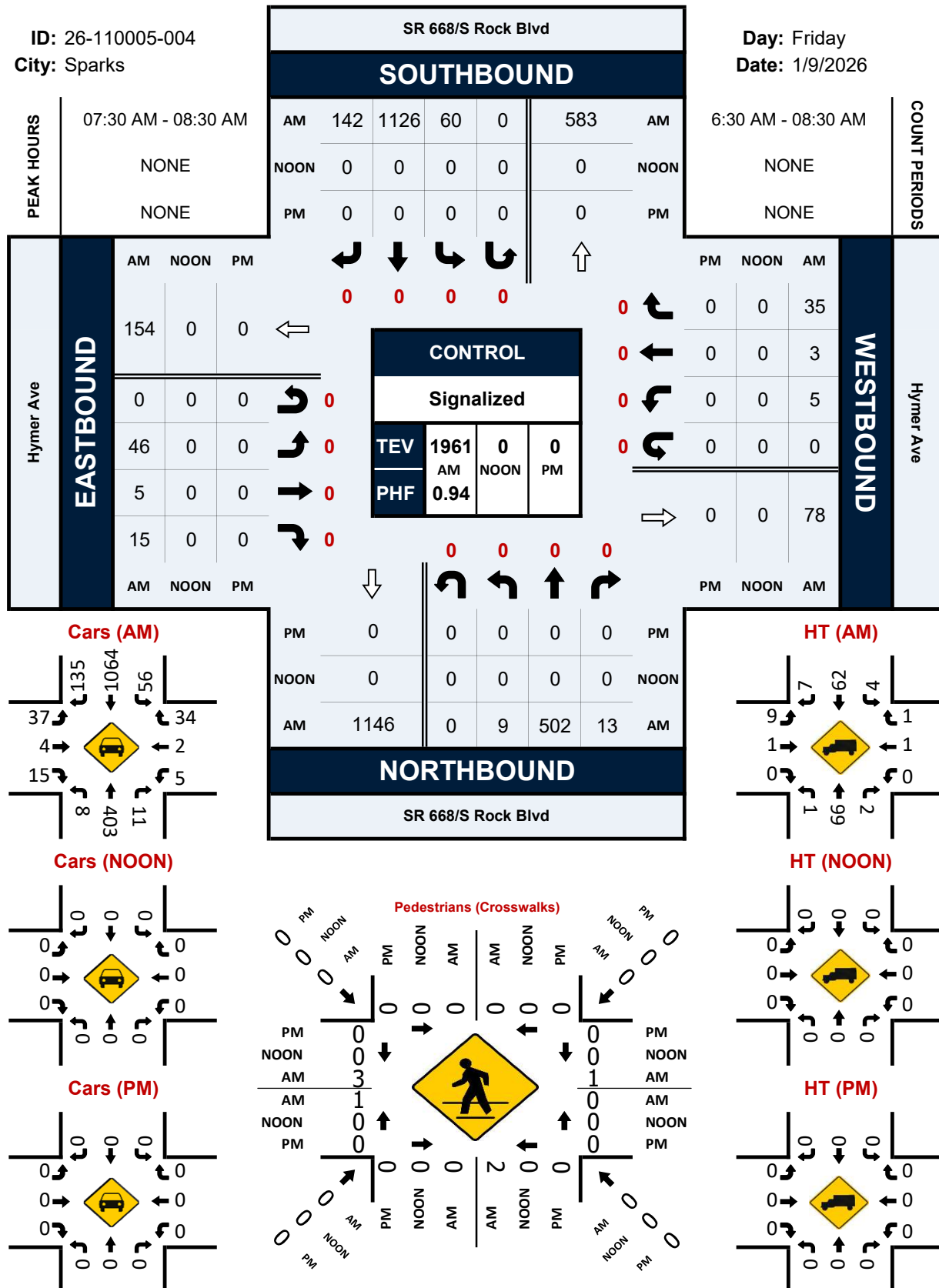
Prepared by National Data &amp; Surveying Services

## SR 668/S Rock Blvd &amp; Hymer Ave

## Peak Hour Turning Movement Count

ID: 26-110005-004  
City: Sparks

Day: Friday  
Date: 1/9/2026

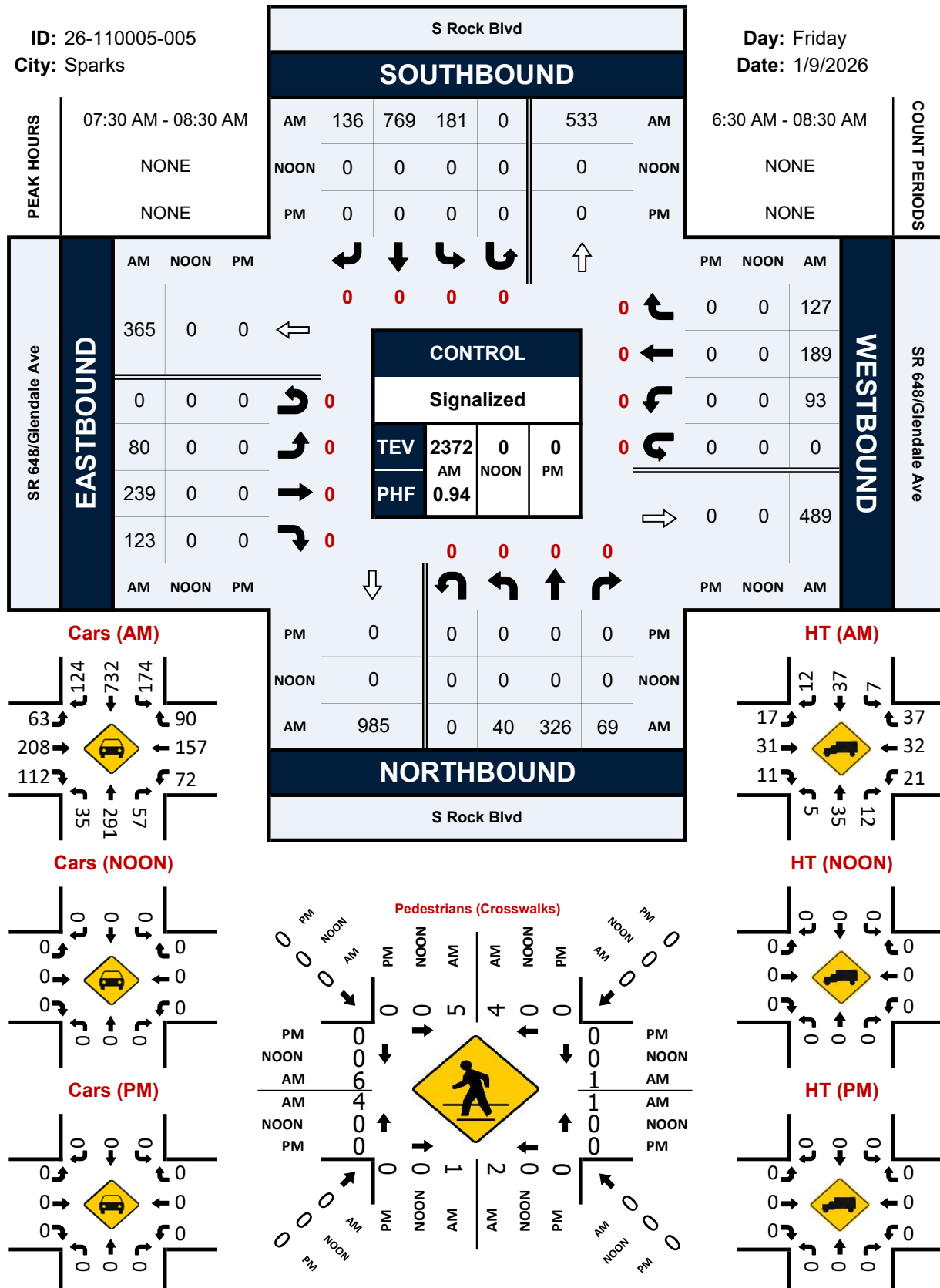




**S Rock Blvd & SR 648/Glendale Ave**

**ID:** 26-110005-005  
**City:** Sparks

**Day:** Friday  
**Date:** 1/9/2026







Prepared by National Data &amp; Surveying Services

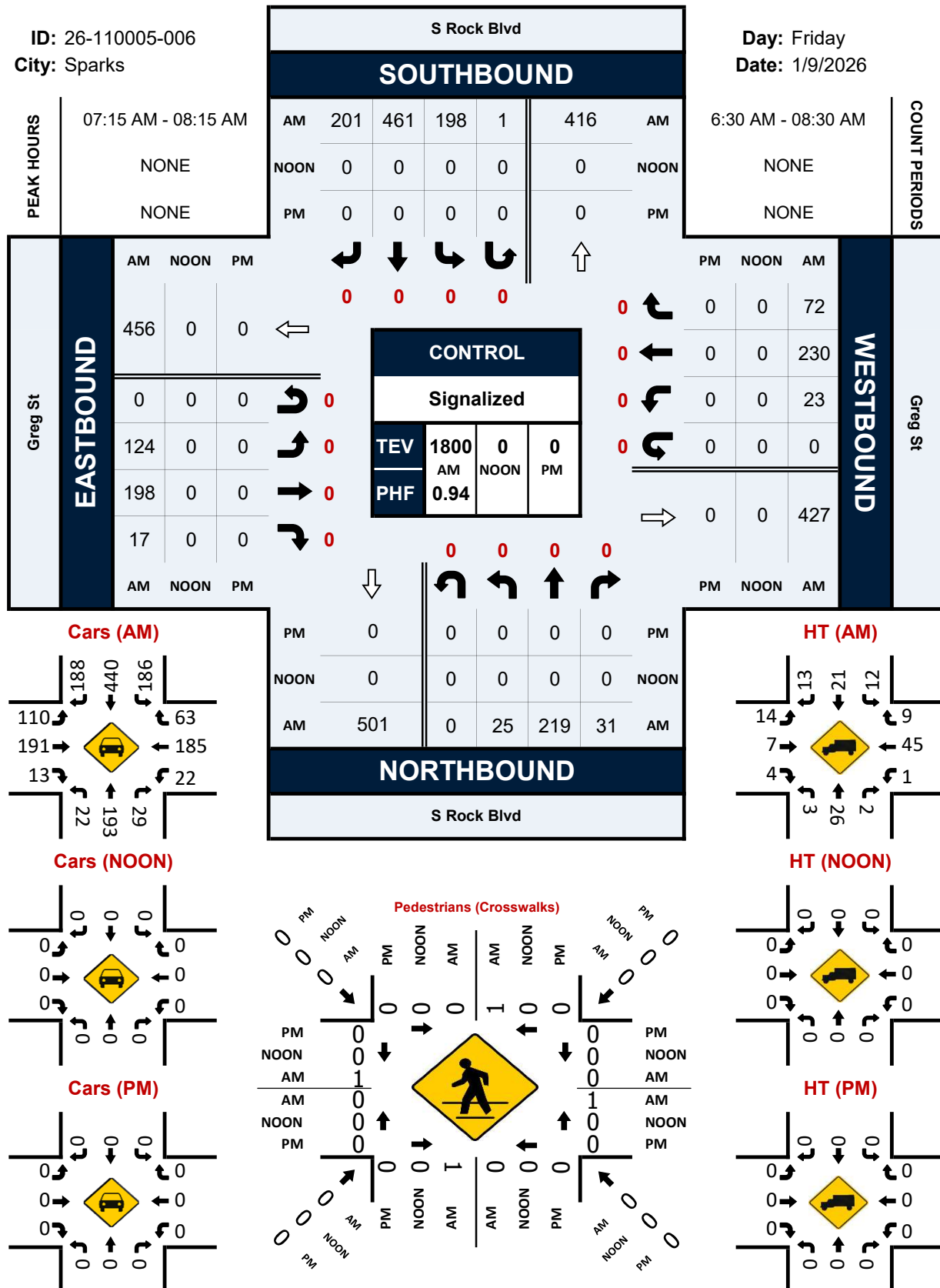
**S Rock Blvd & Greg St****Peak Hour Turning Movement Count**

ID: 26-110005-006

City: Sparks

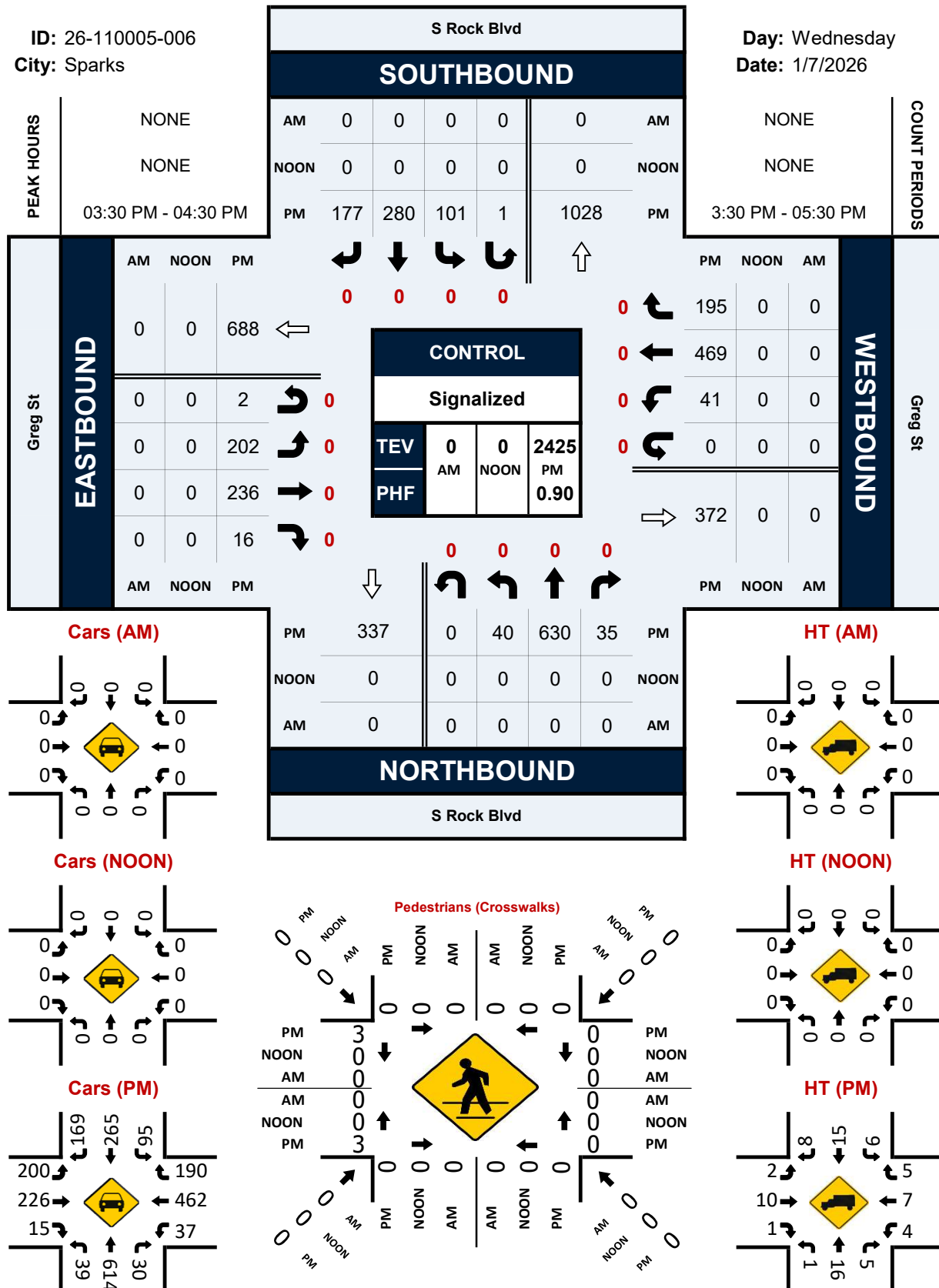
Day: Friday

Date: 1/9/2026



**S Rock Blvd & Greg St**

**Day:** Wednesday  
**Date:** 1/7/2026



## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection              |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 3.5                                                                               |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
| Movement                  | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR   | SBL                                                                               | SBT                                                                               |
| Lane Configurations       |  |  |  |       |  |  |
| Traffic Vol, veh/h        | 8                                                                                 | 150                                                                               | 231                                                                               | 22    | 242                                                                               | 472                                                                               |
| Future Vol, veh/h         | 8                                                                                 | 150                                                                               | 231                                                                               | 22    | 242                                                                               | 472                                                                               |
| Conflicting Peds, #/hr    | 0                                                                                 | 2                                                                                 | 0                                                                                 | 2     | 2                                                                                 | 0                                                                                 |
| Sign Control              | Stop                                                                              | Stop                                                                              | Free                                                                              | Free  | Free                                                                              | Free                                                                              |
| RT Channelized            | -                                                                                 | Stop                                                                              | -                                                                                 | None  | -                                                                                 | None                                                                              |
| Storage Length            | 0                                                                                 | 0                                                                                 | -                                                                                 | -     | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Grade, %                  | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Peak Hour Factor          | 86                                                                                | 86                                                                                | 86                                                                                | 86    | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3     | 3                                                                                 | 3                                                                                 |
| Mvmt Flow                 | 9                                                                                 | 174                                                                               | 269                                                                               | 26    | 281                                                                               | 549                                                                               |
| Major/Minor               | Minor1                                                                            | Major1                                                                            | Major2                                                                            |       |                                                                                   |                                                                                   |
| Conflicting Flow All      | 1121                                                                              | 151                                                                               | 0                                                                                 | 0     | 296                                                                               | 0                                                                                 |
| Stage 1                   | 283                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 837                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy             | 6.86                                                                              | 6.96                                                                              | -                                                                                 | -     | 4.16                                                                              | -                                                                                 |
| Critical Hdwy Stg 1       | 5.86                                                                              | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2       | 5.86                                                                              | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Follow-up Hdwy            | 3.53                                                                              | 3.33                                                                              | -                                                                                 | -     | 2.23                                                                              | -                                                                                 |
| Pot Cap-1 Maneuver        | 199                                                                               | 865                                                                               | -                                                                                 | -     | 1255                                                                              | -                                                                                 |
| Stage 1                   | 736                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 383                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Platoon blocked, %        |                                                                                   |                                                                                   | -                                                                                 | -     |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver        | 154                                                                               | 862                                                                               | -                                                                                 | -     | 1252                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver        | 154                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 1                   | 735                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 297                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Approach                  | WB                                                                                | NB                                                                                | SB                                                                                |       |                                                                                   |                                                                                   |
| HCM Control Delay, s/v    | 11.23                                                                             | 0                                                                                 | 2.95                                                                              |       |                                                                                   |                                                                                   |
| HCM LOS                   | B                                                                                 |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt     | NBT                                                                               | NBR                                                                               | WBLn1                                                                             | WBLn2 | SBL                                                                               | SBT                                                                               |
| Capacity (veh/h)          | -                                                                                 | -                                                                                 | 154                                                                               | 862   | 1252                                                                              | -                                                                                 |
| HCM Lane V/C Ratio        | -                                                                                 | -                                                                                 | 0.061                                                                             | 0.202 | 0.225                                                                             | -                                                                                 |
| HCM Control Delay (s/veh) | -                                                                                 | -                                                                                 | 29.9                                                                              | 10.2  | 8.7                                                                               | -                                                                                 |
| HCM Lane LOS              | -                                                                                 | -                                                                                 | D                                                                                 | B     | A                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)     | -                                                                                 | -                                                                                 | 0.2                                                                               | 0.8   | 0.9                                                                               | -                                                                                 |

## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 1                                                                                 | 0                                                                                 | 4                                                                                 | 28                                                                                | 2                                                                                 | 15                                                                                | 10                                                                                  | 334                                                                                 | 24                                                                                  | 6                                                                                   | 697                                                                                 | 2                                                                                   |
| Future Volume (veh/h)        | 1                                                                                 | 0                                                                                 | 4                                                                                 | 28                                                                                | 2                                                                                 | 15                                                                                | 10                                                                                  | 334                                                                                 | 24                                                                                  | 6                                                                                   | 697                                                                                 | 2                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 1                                                                                 | 0                                                                                 | 3                                                                                 | 29                                                                                | 2                                                                                 | 11                                                                                | 11                                                                                  | 352                                                                                 | 18                                                                                  | 6                                                                                   | 734                                                                                 | 1                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 40                                                                                | 5                                                                                 | 35                                                                                | 96                                                                                | 7                                                                                 | 41                                                                                | 351                                                                                 | 1814                                                                                | 807                                                                                 | 577                                                                                 | 1838                                                                                | 3                                                                                   |
| Arrive On Green              | 0.03                                                                              | 0.00                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                                | 1.00                                                                                | 1.00                                                                                | 0.01                                                                                | 0.52                                                                                | 0.52                                                                                |
| Sat Flow, veh/h              | 221                                                                               | 165                                                                               | 1158                                                                              | 1380                                                                              | 244                                                                               | 1341                                                                              | 1739                                                                                | 3469                                                                                | 1544                                                                                | 1739                                                                                | 3555                                                                                | 5                                                                                   |
| Grp Volume(v), veh/h         | 4                                                                                 | 0                                                                                 | 0                                                                                 | 29                                                                                | 0                                                                                 | 13                                                                                | 11                                                                                  | 352                                                                                 | 18                                                                                  | 6                                                                                   | 358                                                                                 | 377                                                                                 |
| Grp Sat Flow(s), veh/h/ln    | 1543                                                                              | 0                                                                                 | 0                                                                                 | 1380                                                                              | 0                                                                                 | 1585                                                                              | 1739                                                                                | 1735                                                                                | 1544                                                                                | 1739                                                                                | 1735                                                                                | 1825                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 2.4                                                                               | 0.0                                                                               | 1.1                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 17.0                                                                                | 17.0                                                                                |
| Cycle Q Clear(g_c), s        | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 2.7                                                                               | 0.0                                                                               | 1.1                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 17.0                                                                                | 17.0                                                                                |
| Prop In Lane                 | 0.25                                                                              |                                                                                   | 0.75                                                                              | 1.00                                                                              |                                                                                   | 0.85                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 80                                                                                | 0                                                                                 | 0                                                                                 | 96                                                                                | 0                                                                                 | 48                                                                                | 351                                                                                 | 1814                                                                                | 807                                                                                 | 577                                                                                 | 897                                                                                 | 944                                                                                 |
| V/C Ratio(X)                 | 0.05                                                                              | 0.00                                                                              | 0.00                                                                              | 0.30                                                                              | 0.00                                                                              | 0.27                                                                              | 0.03                                                                                | 0.19                                                                                | 0.02                                                                                | 0.01                                                                                | 0.40                                                                                | 0.40                                                                                |
| Avail Cap(c_a), veh/h        | 480                                                                               | 0                                                                                 | 0                                                                                 | 464                                                                               | 0                                                                                 | 471                                                                               | 459                                                                                 | 1814                                                                                | 807                                                                                 | 695                                                                                 | 897                                                                                 | 944                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.99                                                                                | 0.99                                                                                | 0.99                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 63.6                                                                              | 0.0                                                                               | 0.0                                                                               | 64.7                                                                              | 0.0                                                                               | 64.0                                                                              | 15.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 15.3                                                                                | 19.8                                                                                | 19.8                                                                                |
| Incr Delay (d2), s/veh       | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 1.7                                                                               | 0.0                                                                               | 2.9                                                                               | 0.0                                                                                 | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 1.3                                                                                 | 1.3                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 1.9                                                                               | 0.0                                                                               | 0.9                                                                               | 0.3                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 11.6                                                                                | 12.1                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 63.9                                                                              | 0.0                                                                               | 0.0                                                                               | 66.5                                                                              | 0.0                                                                               | 66.9                                                                              | 15.9                                                                                | 0.2                                                                                 | 0.1                                                                                 | 15.3                                                                                | 21.2                                                                                | 21.1                                                                                |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | B                                                                                   | A                                                                                   | A                                                                                   | B                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 4                                                                                 |                                                                                   |                                                                                   | 42                                                                                |                                                                                   |                                                                                   | 381                                                                                 |                                                                                     |                                                                                     | 741                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 63.9                                                                              |                                                                                   |                                                                                   | 66.6                                                                              |                                                                                   |                                                                                   | 0.7                                                                                 |                                                                                     |                                                                                     | 21.1                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 5.8                                                                               | 75.8                                                                              |                                                                                   | 9.0                                                                               | 6.6                                                                               | 75.0                                                                              |                                                                                     | 9.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 40.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 40.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.2                                                                               | 2.0                                                                               |                                                                                   | 2.3                                                                               | 2.4                                                                               | 19.0                                                                              |                                                                                     | 4.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.7                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 5.4                                                                               |                                                                                     | 0.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 16.2                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 3: Rock Blvd &amp; Victorian Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |                                                                                   |  |  |                                                                                   |  |  |  |
| Traffic Volume (veh/h)                                                                             | 13                                                                                | 54                                                                                | 136                                                                               | 109                                                                               | 100                                                                               | 14                                                                                | 66                                                                                | 341                                                                               | 34                                                                                | 20                                                                                  | 695                                                                                 | 19                                                                                  |
| Future Volume (veh/h)                                                                              | 13                                                                                | 54                                                                                | 136                                                                               | 109                                                                               | 100                                                                               | 14                                                                                | 66                                                                                | 341                                                                               | 34                                                                                | 20                                                                                  | 695                                                                                 | 19                                                                                  |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 0.99                                                                              |                                                                                   | 0.99                                                                              | 0.99                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 14                                                                                | 57                                                                                | 71                                                                                | 115                                                                               | 105                                                                               | 11                                                                                | 69                                                                                | 359                                                                               | 25                                                                                | 21                                                                                  | 732                                                                                 | 14                                                                                  |
| Peak Hour Factor                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 165                                                                               | 273                                                                               | 229                                                                               | 202                                                                               | 242                                                                               | 25                                                                                | 775                                                                               | 2337                                                                              | 162                                                                               | 412                                                                                 | 1657                                                                                | 32                                                                                  |
| Arrive On Green                                                                                    | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.08                                                                              | 0.24                                                                              | 0.24                                                                              | 0.04                                                                                | 0.96                                                                                | 0.96                                                                                |
| Sat Flow, veh/h                                                                                    | 1226                                                                              | 1811                                                                              | 1516                                                                              | 1211                                                                              | 1607                                                                              | 168                                                                               | 1725                                                                              | 3264                                                                              | 226                                                                               | 1725                                                                                | 3452                                                                                | 66                                                                                  |
| Grp Volume(v), veh/h                                                                               | 14                                                                                | 57                                                                                | 71                                                                                | 115                                                                               | 0                                                                                 | 116                                                                               | 69                                                                                | 188                                                                               | 196                                                                               | 21                                                                                  | 365                                                                                 | 381                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1226                                                                              | 1811                                                                              | 1516                                                                              | 1211                                                                              | 0                                                                                 | 1776                                                                              | 1725                                                                              | 1721                                                                              | 1770                                                                              | 1725                                                                                | 1721                                                                                | 1797                                                                                |
| Q Serve(g_s), s                                                                                    | 1.4                                                                               | 3.7                                                                               | 5.6                                                                               | 12.4                                                                              | 0.0                                                                               | 8.0                                                                               | 0.0                                                                               | 11.7                                                                              | 11.8                                                                              | 0.9                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 9.4                                                                               | 3.7                                                                               | 5.6                                                                               | 16.1                                                                              | 0.0                                                                               | 8.0                                                                               | 0.0                                                                               | 11.7                                                                              | 11.8                                                                              | 0.9                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.09                                                                              | 1.00                                                                              |                                                                                   | 0.13                                                                              | 1.00                                                                                |                                                                                     | 0.04                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 165                                                                               | 273                                                                               | 229                                                                               | 202                                                                               | 0                                                                                 | 268                                                                               | 775                                                                               | 1232                                                                              | 1267                                                                              | 412                                                                                 | 826                                                                                 | 863                                                                                 |
| V/C Ratio(X)                                                                                       | 0.08                                                                              | 0.21                                                                              | 0.31                                                                              | 0.57                                                                              | 0.00                                                                              | 0.43                                                                              | 0.09                                                                              | 0.15                                                                              | 0.15                                                                              | 0.05                                                                                | 0.44                                                                                | 0.44                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 345                                                                               | 538                                                                               | 450                                                                               | 380                                                                               | 0                                                                                 | 527                                                                               | 775                                                                               | 1232                                                                              | 1267                                                                              | 567                                                                                 | 826                                                                                 | 863                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.33                                                                              | 0.33                                                                              | 0.33                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Uniform Delay (d), s/veh                                                                           | 56.4                                                                              | 50.3                                                                              | 51.1                                                                              | 57.4                                                                              | 0.0                                                                               | 52.1                                                                              | 10.8                                                                              | 19.1                                                                              | 19.2                                                                              | 20.4                                                                                | 1.4                                                                                 | 1.4                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 0.2                                                                               | 0.4                                                                               | 0.8                                                                               | 2.5                                                                               | 0.0                                                                               | 1.1                                                                               | 0.0                                                                               | 0.3                                                                               | 0.3                                                                               | 0.0                                                                                 | 1.7                                                                                 | 1.6                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 0.8                                                                               | 3.1                                                                               | 4.0                                                                               | 7.1                                                                               | 0.0                                                                               | 6.6                                                                               | 1.7                                                                               | 9.3                                                                               | 9.6                                                                               | 0.7                                                                                 | 1.5                                                                                 | 1.6                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 56.6                                                                              | 50.6                                                                              | 51.8                                                                              | 59.8                                                                              | 0.0                                                                               | 53.2                                                                              | 10.8                                                                              | 19.4                                                                              | 19.4                                                                              | 20.5                                                                                | 3.1                                                                                 | 3.1                                                                                 |
| LnGrp LOS                                                                                          | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 |                                                                                   | D                                                                                 | B                                                                                 | B                                                                                 | B                                                                                 | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h                                                                                | 142                                                                               |                                                                                   |                                                                                   | 231                                                                               |                                                                                   |                                                                                   | 453                                                                               |                                                                                   |                                                                                   | 767                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 51.8                                                                              |                                                                                   |                                                                                   | 56.5                                                                              |                                                                                   |                                                                                   | 18.1                                                                              |                                                                                   |                                                                                   | 3.6                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                   | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 7.8                                                                               | 101.9                                                                             |                                                                                   | 25.2                                                                              | 39.8                                                                              | 70.0                                                                              |                                                                                   | 25.2                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.1                                                                               | * 5.3                                                                             |                                                                                   | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 14.9                                                                              | * 65                                                                              |                                                                                   | 40.1                                                                              | 14.7                                                                              | 64.8                                                                              |                                                                                   | 40.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s                                                                        | 12.9                                                                              | 13.8                                                                              |                                                                                   | 11.4                                                                              | 2.0                                                                               | 4.0                                                                               |                                                                                   | 18.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.0                                                                               | 2.5                                                                               |                                                                                   | 0.6                                                                               | 0.1                                                                               | 5.5                                                                               |                                                                                   | 1.0                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 19.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| User approved pedestrian interval to be less than phase max green.                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 4: Rock Blvd &amp; Hymer Ave

|                              |  |       |      |      |      |       |      |      |      |      |      |      |
|------------------------------|------------------------------------------------------------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|
| Movement                     | EBL                                                                                | EBT   | EBR  | WBL  | WBT  | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations          |                                                                                    | ↕     |      |      | ↕    |       | ↕    | ↕    |      | ↕    | ↕    |      |
| Traffic Volume (veh/h)       | 51                                                                                 | 6     | 17   | 6    | 3    | 39    | 10   | 552  | 14   | 66   | 1239 | 156  |
| Future Volume (veh/h)        | 51                                                                                 | 6     | 17   | 6    | 3    | 39    | 10   | 552  | 14   | 66   | 1239 | 156  |
| Initial Q (Qb), veh          | 0                                                                                  | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Lane Width Adj.              | 1.00                                                                               | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                               |       | 0.99 | 1.00 |      | 0.98  | 1.00 |      | 1.00 | 1.00 |      | 0.98 |
| Parking Bus, Adj             | 1.00                                                                               | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No                                                                                 |       |      | No   |      |       | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       | 1767                                                                               | 1767  | 1767 | 1767 | 1767 | 1767  | 1767 | 1767 | 1767 | 1767 | 1767 | 1767 |
| Adj Flow Rate, veh/h         | 54                                                                                 | 6     | 13   | 6    | 3    | 28    | 11   | 581  | 11   | 69   | 1304 | 115  |
| Peak Hour Factor             | 0.95                                                                               | 0.95  | 0.95 | 0.95 | 0.95 | 0.95  | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, %         | 9                                                                                  | 9     | 9    | 9    | 9    | 9     | 9    | 9    | 9    | 9    | 9    | 9    |
| Cap, veh/h                   | 72                                                                                 | 8     | 17   | 7    | 4    | 34    | 236  | 2438 | 46   | 629  | 2319 | 204  |
| Arrive On Green              | 0.06                                                                               | 0.06  | 0.06 | 0.03 | 0.03 | 0.03  | 0.01 | 0.72 | 0.72 | 0.02 | 0.50 | 0.50 |
| Sat Flow, veh/h              | 1220                                                                               | 136   | 294  | 247  | 124  | 1153  | 1682 | 3369 | 64   | 1682 | 3114 | 274  |
| Grp Volume(v), veh/h         | 73                                                                                 | 0     | 0    | 37   | 0    | 0     | 11   | 289  | 303  | 69   | 701  | 718  |
| Grp Sat Flow(s), veh/h/ln    | 1649                                                                               | 0     | 0    | 1524 | 0    | 0     | 1682 | 1678 | 1755 | 1682 | 1678 | 1710 |
| Q Serve(g_s), s              | 5.9                                                                                | 0.0   | 0.0  | 3.3  | 0.0  | 0.0   | 0.2  | 7.8  | 7.8  | 1.4  | 39.2 | 39.6 |
| Cycle Q Clear(g_c), s        | 5.9                                                                                | 0.0   | 0.0  | 3.3  | 0.0  | 0.0   | 0.2  | 7.8  | 7.8  | 1.4  | 39.2 | 39.6 |
| Prop In Lane                 | 0.74                                                                               |       | 0.18 | 0.16 |      | 0.76  | 1.00 |      | 0.04 | 1.00 |      | 0.16 |
| Lane Grp Cap(c), veh/h       | 98                                                                                 | 0     | 0    | 45   | 0    | 0     | 236  | 1214 | 1270 | 629  | 1249 | 1273 |
| V/C Ratio(X)                 | 0.75                                                                               | 0.00  | 0.00 | 0.82 | 0.00 | 0.00  | 0.05 | 0.24 | 0.24 | 0.11 | 0.56 | 0.56 |
| Avail Cap(c_a), veh/h        | 238                                                                                | 0     | 0    | 164  | 0    | 0     | 406  | 1214 | 1270 | 703  | 1249 | 1273 |
| HCM Platoon Ratio            | 1.00                                                                               | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 0.67 | 0.67 | 0.67 |
| Upstream Filter(I)           | 1.00                                                                               | 0.00  | 0.00 | 1.00 | 0.00 | 0.00  | 0.95 | 0.95 | 0.95 | 0.93 | 0.93 | 0.93 |
| Uniform Delay (d), s/veh     | 62.5                                                                               | 0.0   | 0.0  | 65.1 | 0.0  | 0.0   | 9.9  | 6.2  | 6.2  | 4.4  | 18.5 | 18.6 |
| Incr Delay (d2), s/veh       | 10.7                                                                               | 0.0   | 0.0  | 29.0 | 0.0  | 0.0   | 0.1  | 0.4  | 0.4  | 0.1  | 1.7  | 1.7  |
| Initial Q Delay(d3), s/veh   | 0.0                                                                                | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 5.0                                                                                | 0.0   | 0.0  | 2.9  | 0.0  | 0.0   | 0.2  | 5.0  | 5.2  | 0.8  | 23.5 | 24.1 |
| Unsig. Movement Delay, s/veh |                                                                                    |       |      |      |      |       |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh        | 73.2                                                                               | 0.0   | 0.0  | 94.2 | 0.0  | 0.0   | 10.0 | 6.7  | 6.7  | 4.4  | 20.2 | 20.3 |
| LnGrp LOS                    | E                                                                                  |       |      | F    |      |       | A    | A    | A    | A    | C    | C    |
| Approach Vol, veh/h          | 73                                                                                 |       |      | 37   |      |       | 603  |      |      | 1488 |      |      |
| Approach Delay, s/veh        | 73.2                                                                               |       |      | 94.2 |      |       | 6.7  |      |      | 19.5 |      |      |
| Approach LOS                 | E                                                                                  |       |      | F    |      |       | A    |      |      | B    |      |      |
| Timer - Assigned Phs         | 1                                                                                  | 2     |      | 4    | 5    | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 9.1                                                                                | 102.9 |      | 9.5  | 6.3  | 105.7 |      | 13.5 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.5                                                                                | 5.2   |      | 5.5  | 4.6  | 5.2   |      | 5.5  |      |      |      |      |
| Max Green Setting (Gmax), s  | 10.5                                                                               | 69.8  |      | 14.5 | 15.4 | 64.8  |      | 19.5 |      |      |      |      |
| Max Q Clear Time (g_c+I), s  | 13.4                                                                               | 9.8   |      | 5.3  | 2.2  | 41.6  |      | 7.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.1                                                                                | 4.2   |      | 0.1  | 0.0  | 11.4  |      | 0.2  |      |      |      |      |
| <b>Intersection Summary</b>  |                                                                                    |       |      |      |      |       |      |      |      |      |      |      |
| HCM 7th Control Delay, s/veh | 19.0                                                                               |       |      |      |      |       |      |      |      |      |      |      |
| HCM 7th LOS                  | B                                                                                  |       |      |      |      |       |      |      |      |      |      |      |

## HCM 7th Signalized Intersection Summary

## 5: Rock Blvd &amp; Glendale Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 88                                                                                | 263                                                                               | 135                                                                               | 102                                                                               | 208                                                                               | 140                                                                               | 44                                                                                | 359                                                                               | 76                                                                                | 199                                                                                 | 846                                                                                 | 150                                                                                 |
| Future Volume (veh/h)                                                                              | 88                                                                                | 263                                                                               | 135                                                                               | 102                                                                               | 208                                                                               | 140                                                                               | 44                                                                                | 359                                                                               | 76                                                                                | 199                                                                                 | 846                                                                                 | 150                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                                | 1752                                                                                | 1752                                                                                |
| Adj Flow Rate, veh/h                                                                               | 94                                                                                | 280                                                                               | 72                                                                                | 109                                                                               | 221                                                                               | 75                                                                                | 47                                                                                | 382                                                                               | 41                                                                                | 212                                                                                 | 900                                                                                 | 80                                                                                  |
| Peak Hour Factor                                                                                   | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Percent Heavy Veh, %                                                                               | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                  | 10                                                                                  | 10                                                                                  |
| Cap, veh/h                                                                                         | 116                                                                               | 417                                                                               | 179                                                                               | 132                                                                               | 451                                                                               | 197                                                                               | 60                                                                                | 1058                                                                              | 468                                                                               | 274                                                                                 | 1228                                                                                | 543                                                                                 |
| Arrive On Green                                                                                    | 0.07                                                                              | 0.13                                                                              | 0.13                                                                              | 0.08                                                                              | 0.14                                                                              | 0.14                                                                              | 0.04                                                                              | 0.32                                                                              | 0.32                                                                              | 0.08                                                                                | 0.37                                                                                | 0.37                                                                                |
| Sat Flow, veh/h                                                                                    | 1668                                                                              | 3328                                                                              | 1430                                                                              | 1668                                                                              | 3328                                                                              | 1455                                                                              | 1668                                                                              | 3328                                                                              | 1471                                                                              | 3237                                                                                | 3328                                                                                | 1473                                                                                |
| Grp Volume(v), veh/h                                                                               | 94                                                                                | 280                                                                               | 72                                                                                | 109                                                                               | 221                                                                               | 75                                                                                | 47                                                                                | 382                                                                               | 41                                                                                | 212                                                                                 | 900                                                                                 | 80                                                                                  |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1668                                                                              | 1664                                                                              | 1430                                                                              | 1668                                                                              | 1664                                                                              | 1455                                                                              | 1668                                                                              | 1664                                                                              | 1471                                                                              | 1618                                                                                | 1664                                                                                | 1473                                                                                |
| Q Serve(g_s), s                                                                                    | 7.5                                                                               | 10.8                                                                              | 3.8                                                                               | 8.7                                                                               | 8.3                                                                               | 6.3                                                                               | 3.8                                                                               | 11.9                                                                              | 2.6                                                                               | 8.7                                                                                 | 31.6                                                                                | 2.0                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 7.5                                                                               | 10.8                                                                              | 3.8                                                                               | 8.7                                                                               | 8.3                                                                               | 6.3                                                                               | 3.8                                                                               | 11.9                                                                              | 2.6                                                                               | 8.7                                                                                 | 31.6                                                                                | 2.0                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 116                                                                               | 417                                                                               | 179                                                                               | 132                                                                               | 451                                                                               | 197                                                                               | 60                                                                                | 1058                                                                              | 468                                                                               | 274                                                                                 | 1228                                                                                | 543                                                                                 |
| V/C Ratio(X)                                                                                       | 0.81                                                                              | 0.67                                                                              | 0.40                                                                              | 0.83                                                                              | 0.49                                                                              | 0.38                                                                              | 0.79                                                                              | 0.36                                                                              | 0.09                                                                              | 0.77                                                                                | 0.73                                                                                | 0.15                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 240                                                                               | 602                                                                               | 259                                                                               | 239                                                                               | 602                                                                               | 263                                                                               | 242                                                                               | 1058                                                                              | 468                                                                               | 1067                                                                                | 1228                                                                                | 543                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.96                                                                              | 0.96                                                                              | 0.96                                                                              | 0.75                                                                                | 0.75                                                                                | 0.75                                                                                |
| Uniform Delay (d), s/veh                                                                           | 62.0                                                                              | 56.4                                                                              | 19.9                                                                              | 61.3                                                                              | 54.0                                                                              | 53.2                                                                              | 64.6                                                                              | 35.5                                                                              | 32.3                                                                              | 60.5                                                                                | 36.8                                                                                | 4.6                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 12.7                                                                              | 1.9                                                                               | 1.5                                                                               | 12.2                                                                              | 0.8                                                                               | 1.2                                                                               | 19.2                                                                              | 0.9                                                                               | 0.4                                                                               | 3.5                                                                                 | 2.9                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 6.5                                                                               | 8.2                                                                               | 4.1                                                                               | 7.4                                                                               | 6.4                                                                               | 4.3                                                                               | 3.5                                                                               | 8.6                                                                               | 1.8                                                                               | 6.4                                                                                 | 18.5                                                                                | 3.2                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 74.7                                                                              | 58.3                                                                              | 21.3                                                                              | 73.5                                                                              | 54.8                                                                              | 54.4                                                                              | 83.8                                                                              | 36.4                                                                              | 32.7                                                                              | 64.1                                                                                | 39.8                                                                                | 5.0                                                                                 |
| LnGrp LOS                                                                                          | E                                                                                 | E                                                                                 | C                                                                                 | E                                                                                 | D                                                                                 | D                                                                                 | F                                                                                 | D                                                                                 | C                                                                                 | E                                                                                   | D                                                                                   | A                                                                                   |
| Approach Vol, veh/h                                                                                | 446                                                                               |                                                                                   |                                                                                   | 405                                                                               |                                                                                   |                                                                                   | 470                                                                               |                                                                                   |                                                                                   | 1192                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 55.8                                                                              |                                                                                   |                                                                                   | 59.8                                                                              |                                                                                   |                                                                                   | 40.8                                                                              |                                                                                   |                                                                                   | 41.8                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 46.9                                                                              | 48.3                                                                              | 16.4                                                                              | 22.5                                                                              | 10.2                                                                              | 55.0                                                                              | 15.0                                                                              | 23.9                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.5                                                                               | * 5.4                                                                             | 5.7                                                                               | 5.6                                                                               | 5.4                                                                               | 5.2                                                                               | 5.6                                                                               | 5.6                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 44.5                                                                              | * 25                                                                              | 19.3                                                                              | 24.4                                                                              | 19.6                                                                              | 49.8                                                                              | 19.4                                                                              | 24.4                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+10), s                                                                       | 110.7                                                                             | 13.9                                                                              | 10.7                                                                              | 12.8                                                                              | 5.8                                                                               | 33.6                                                                              | 9.5                                                                               | 10.3                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.8                                                                               | 1.9                                                                               | 0.2                                                                               | 1.5                                                                               | 0.1                                                                               | 6.2                                                                               | 0.1                                                                               | 1.4                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 47.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 6: Rock Blvd &amp; Greg St

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                   |  |  |  |
| Traffic Volume (veh/h)                                                                             | 136                                                                               | 218                                                                               | 19                                                                                | 25                                                                                | 253                                                                               | 79                                                                                | 28                                                                                | 241                                                                               | 34                                                                                | 219                                                                                 | 507                                                                                 | 221                                                                                 |
| Future Volume (veh/h)                                                                              | 136                                                                               | 218                                                                               | 19                                                                                | 25                                                                                | 253                                                                               | 79                                                                                | 28                                                                                | 241                                                                               | 34                                                                                | 219                                                                                 | 507                                                                                 | 221                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                                | 1767                                                                                | 1767                                                                                |
| Adj Flow Rate, veh/h                                                                               | 145                                                                               | 232                                                                               | 14                                                                                | 27                                                                                | 269                                                                               | 58                                                                                | 30                                                                                | 256                                                                               | 25                                                                                | 233                                                                                 | 539                                                                                 | 118                                                                                 |
| Peak Hour Factor                                                                                   | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Percent Heavy Veh, %                                                                               | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                   | 9                                                                                   | 9                                                                                   |
| Cap, veh/h                                                                                         | 229                                                                               | 606                                                                               | 36                                                                                | 225                                                                               | 339                                                                               | 72                                                                                | 316                                                                               | 1255                                                                              | 122                                                                               | 453                                                                                 | 1395                                                                                | 622                                                                                 |
| Arrive On Green                                                                                    | 0.09                                                                              | 0.19                                                                              | 0.19                                                                              | 0.02                                                                              | 0.12                                                                              | 0.12                                                                              | 0.03                                                                              | 0.41                                                                              | 0.41                                                                              | 0.07                                                                                | 0.83                                                                                | 0.83                                                                                |
| Sat Flow, veh/h                                                                                    | 1682                                                                              | 3217                                                                              | 193                                                                               | 1682                                                                              | 2754                                                                              | 584                                                                               | 1682                                                                              | 3091                                                                              | 299                                                                               | 1682                                                                                | 3357                                                                                | 1496                                                                                |
| Grp Volume(v), veh/h                                                                               | 145                                                                               | 120                                                                               | 126                                                                               | 27                                                                                | 162                                                                               | 165                                                                               | 30                                                                                | 138                                                                               | 143                                                                               | 233                                                                                 | 539                                                                                 | 118                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1682                                                                              | 1678                                                                              | 1732                                                                              | 1682                                                                              | 1678                                                                              | 1660                                                                              | 1682                                                                              | 1678                                                                              | 1712                                                                              | 1682                                                                                | 1678                                                                                | 1496                                                                                |
| Q Serve(g_s), s                                                                                    | 9.8                                                                               | 8.5                                                                               | 8.6                                                                               | 1.9                                                                               | 12.7                                                                              | 13.0                                                                              | 1.5                                                                               | 7.2                                                                               | 7.3                                                                               | 0.0                                                                                 | 5.4                                                                                 | 2.1                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 9.8                                                                               | 8.5                                                                               | 8.6                                                                               | 1.9                                                                               | 12.7                                                                              | 13.0                                                                              | 1.5                                                                               | 7.2                                                                               | 7.3                                                                               | 0.0                                                                                 | 5.4                                                                                 | 2.1                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 0.11                                                                              | 1.00                                                                              |                                                                                   | 0.35                                                                              | 1.00                                                                              |                                                                                   | 0.17                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 229                                                                               | 316                                                                               | 326                                                                               | 225                                                                               | 207                                                                               | 204                                                                               | 316                                                                               | 681                                                                               | 695                                                                               | 453                                                                                 | 1395                                                                                | 622                                                                                 |
| V/C Ratio(X)                                                                                       | 0.63                                                                              | 0.38                                                                              | 0.39                                                                              | 0.12                                                                              | 0.79                                                                              | 0.81                                                                              | 0.10                                                                              | 0.20                                                                              | 0.21                                                                              | 0.51                                                                                | 0.39                                                                                | 0.19                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 323                                                                               | 316                                                                               | 326                                                                               | 428                                                                               | 303                                                                               | 300                                                                               | 454                                                                               | 681                                                                               | 695                                                                               | 573                                                                                 | 1395                                                                                | 622                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.82                                                                                | 0.82                                                                                | 0.82                                                                                |
| Uniform Delay (d), s/veh                                                                           | 45.1                                                                              | 47.9                                                                              | 47.9                                                                              | 50.0                                                                              | 57.5                                                                              | 57.6                                                                              | 26.6                                                                              | 26.0                                                                              | 26.0                                                                              | 33.7                                                                                | 7.1                                                                                 | 6.8                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 2.9                                                                               | 0.8                                                                               | 0.7                                                                               | 0.2                                                                               | 8.0                                                                               | 9.7                                                                               | 0.1                                                                               | 0.7                                                                               | 0.7                                                                               | 0.7                                                                                 | 0.7                                                                                 | 0.6                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 7.7                                                                               | 6.5                                                                               | 6.8                                                                               | 1.5                                                                               | 9.8                                                                               | 10.1                                                                              | 1.1                                                                               | 5.5                                                                               | 5.7                                                                               | 9.8                                                                                 | 3.0                                                                                 | 1.4                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 48.0                                                                              | 48.7                                                                              | 48.7                                                                              | 50.2                                                                              | 65.4                                                                              | 67.3                                                                              | 26.8                                                                              | 26.6                                                                              | 26.7                                                                              | 34.4                                                                                | 7.8                                                                                 | 7.4                                                                                 |
| LnGrp LOS                                                                                          | D                                                                                 | D                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h                                                                                | 391                                                                               |                                                                                   |                                                                                   | 354                                                                               |                                                                                   |                                                                                   | 311                                                                               |                                                                                   |                                                                                   | 890                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 48.4                                                                              |                                                                                   |                                                                                   | 65.1                                                                              |                                                                                   |                                                                                   | 26.7                                                                              |                                                                                   |                                                                                   | 14.7                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 60.4                                                                              | 60.0                                                                              | 8.7                                                                               | 31.0                                                                              | 8.9                                                                               | 61.5                                                                              | 17.5                                                                              | 22.2                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.4                                                                               | 5.2                                                                               | 5.5                                                                               | 5.6                                                                               | 5.5                                                                               | * 5.4                                                                             | 5.5                                                                               | 5.6                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 14.6                                                                              | 54.8                                                                              | 19.5                                                                              | 24.4                                                                              | 14.5                                                                              | * 55                                                                              | 19.5                                                                              | 24.4                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I2), s                                                                       | 12.0                                                                              | 9.3                                                                               | 3.9                                                                               | 10.6                                                                              | 3.5                                                                               | 7.4                                                                               | 11.8                                                                              | 15.0                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.5                                                                               | 1.8                                                                               | 0.0                                                                               | 1.1                                                                               | 0.0                                                                               | 4.7                                                                               | 0.2                                                                               | 1.3                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 32.6                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 1.8                                                                               |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations         |  |  |  |      |  |  |
| Traffic Vol, veh/h          | 7                                                                                 | 100                                                                               | 932                                                                               | 35   | 92                                                                                | 261                                                                               |
| Future Vol, veh/h           | 7                                                                                 | 100                                                                               | 932                                                                               | 35   | 92                                                                                | 261                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 7    | 0                                                                                 | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized              | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length              | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor            | 98                                                                                | 98                                                                                | 98                                                                                | 98   | 98                                                                                | 98                                                                                |
| Heavy Vehicles, %           | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                   | 7                                                                                 | 102                                                                               | 951                                                                               | 36   | 94                                                                                | 266                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All        | 1297                                                                              | 500                                                                               | 0                                                                                 | 0    | 994                                                                               | 0                                                                                 |
| Stage 1                     | 976                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 321                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy               | 6.84                                                                              | 6.94                                                                              | -                                                                                 | -    | 4.14                                                                              | -                                                                                 |
| Critical Hdwy Stg 1         | 5.84                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2         | 5.84                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy              | 3.52                                                                              | 3.32                                                                              | -                                                                                 | -    | 2.22                                                                              | -                                                                                 |
| Pot Cap-1 Maneuver          | 154                                                                               | 516                                                                               | -                                                                                 | -    | 692                                                                               | -                                                                                 |
| Stage 1                     | 326                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 708                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver          | 132                                                                               | 513                                                                               | -                                                                                 | -    | 687                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver          | 132                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                     | 324                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 611                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v15.08 |                                                                                   | 0                                                                                 | 2.88                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                     | C                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 132 513                                                                         | 687                                                                               | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.054 0.199                                                                     | 0.137                                                                             | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 33.9 13.8                                                                       | 11.1                                                                              | -    |                                                                                   |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - D B                                                                             | B                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 0.2 0.7                                                                         | 0.5                                                                               | -    |                                                                                   |                                                                                   |

## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 3                                                                                 | 1                                                                                 | 4                                                                                 | 26                                                                                | 4                                                                                 | 15                                                                                | 9                                                                                   | 1265                                                                                | 60                                                                                  | 11                                                                                  | 361                                                                                 | 1                                                                                   |
| Future Volume (veh/h)        | 3                                                                                 | 1                                                                                 | 4                                                                                 | 26                                                                                | 4                                                                                 | 15                                                                                | 9                                                                                   | 1265                                                                                | 60                                                                                  | 11                                                                                  | 361                                                                                 | 1                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.98                                                                              | 0.98                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 3                                                                                 | 1                                                                                 | 3                                                                                 | 27                                                                                | 4                                                                                 | 10                                                                                | 9                                                                                   | 1291                                                                                | 29                                                                                  | 11                                                                                  | 368                                                                                 | 1                                                                                   |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 58                                                                                | 23                                                                                | 35                                                                                | 122                                                                               | 24                                                                                | 61                                                                                | 895                                                                                 | 2971                                                                                | 1293                                                                                | 378                                                                                 | 3043                                                                                | 8                                                                                   |
| Arrive On Green              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.01                                                                                | 0.84                                                                                | 0.84                                                                                | 0.01                                                                                | 0.84                                                                                | 0.84                                                                                |
| Sat Flow, veh/h              | 450                                                                               | 446                                                                               | 672                                                                               | 1381                                                                              | 465                                                                               | 1163                                                                              | 1781                                                                                | 3554                                                                                | 1547                                                                                | 1781                                                                                | 3635                                                                                | 10                                                                                  |
| Grp Volume(v), veh/h         | 7                                                                                 | 0                                                                                 | 0                                                                                 | 27                                                                                | 0                                                                                 | 14                                                                                | 9                                                                                   | 1291                                                                                | 29                                                                                  | 11                                                                                  | 180                                                                                 | 189                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1567                                                                              | 0                                                                                 | 0                                                                                 | 1381                                                                              | 0                                                                                 | 1629                                                                              | 1781                                                                                | 1777                                                                                | 1547                                                                                | 1781                                                                                | 1777                                                                                | 1868                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 2.1                                                                               | 0.0                                                                               | 1.2                                                                               | 0.1                                                                                 | 14.0                                                                                | 0.5                                                                                 | 0.1                                                                                 | 2.8                                                                                 | 2.8                                                                                 |
| Cycle Q Clear(g_c), s        | 0.6                                                                               | 0.0                                                                               | 0.0                                                                               | 2.7                                                                               | 0.0                                                                               | 1.2                                                                               | 0.1                                                                                 | 14.0                                                                                | 0.5                                                                                 | 0.1                                                                                 | 2.8                                                                                 | 2.8                                                                                 |
| Prop In Lane                 | 0.43                                                                              |                                                                                   | 0.43                                                                              | 1.00                                                                              |                                                                                   | 0.71                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.01                                                                                |
| Lane Grp Cap(c), veh/h       | 116                                                                               | 0                                                                                 | 0                                                                                 | 122                                                                               | 0                                                                                 | 85                                                                                | 895                                                                                 | 2971                                                                                | 1293                                                                                | 378                                                                                 | 1487                                                                                | 1564                                                                                |
| V/C Ratio(X)                 | 0.06                                                                              | 0.00                                                                              | 0.00                                                                              | 0.22                                                                              | 0.00                                                                              | 0.16                                                                              | 0.01                                                                                | 0.43                                                                                | 0.02                                                                                | 0.03                                                                                | 0.12                                                                                | 0.12                                                                                |
| Avail Cap(c_a), veh/h        | 589                                                                               | 0                                                                                 | 0                                                                                 | 557                                                                               | 0                                                                                 | 598                                                                               | 996                                                                                 | 2971                                                                                | 1293                                                                                | 478                                                                                 | 1487                                                                                | 1564                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.80                                                                                | 0.80                                                                                | 0.80                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 67.6                                                                              | 0.0                                                                               | 0.0                                                                               | 68.6                                                                              | 0.0                                                                               | 67.9                                                                              | 1.8                                                                                 | 3.2                                                                                 | 2.1                                                                                 | 2.4                                                                                 | 2.2                                                                                 | 2.2                                                                                 |
| Incr Delay (d2), s/veh       | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 0.9                                                                               | 0.0                                                                               | 0.9                                                                               | 0.0                                                                                 | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 0.2                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.5                                                                               | 0.0                                                                               | 0.0                                                                               | 1.9                                                                               | 0.0                                                                               | 1.0                                                                               | 0.1                                                                                 | 7.2                                                                                 | 0.2                                                                                 | 0.1                                                                                 | 1.5                                                                                 | 1.6                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 67.8                                                                              | 0.0                                                                               | 0.0                                                                               | 69.5                                                                              | 0.0                                                                               | 68.8                                                                              | 1.8                                                                                 | 3.5                                                                                 | 2.1                                                                                 | 2.4                                                                                 | 2.4                                                                                 | 2.4                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 7                                                                                 |                                                                                   |                                                                                   | 41                                                                                |                                                                                   |                                                                                   | 1329                                                                                |                                                                                     |                                                                                     | 380                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 67.8                                                                              |                                                                                   |                                                                                   | 69.2                                                                              |                                                                                   |                                                                                   | 3.5                                                                                 |                                                                                     |                                                                                     | 2.4                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 6.6                                                                               | 130.6                                                                             |                                                                                   | 12.8                                                                              | 6.5                                                                               | 130.8                                                                             |                                                                                     | 12.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 55.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 55.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 2.1                                                                               | 16.0                                                                              |                                                                                   | 2.6                                                                               | 2.1                                                                               | 4.8                                                                               |                                                                                     | 4.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 14.4                                                                              |                                                                                   | 0.0                                                                               | 0.0                                                                               | 2.4                                                                               |                                                                                     | 0.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 5.0                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 3: Rock Blvd &amp; Victorian Ave

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |  |  |                                                                                   |  |  |  |
| Traffic Volume (veh/h)       | 51                                                                                | 106                                                                               | 89                                                                                | 109                                                                               | 93                                                                                | 15                                                                                | 126                                                                               | 1266                                                                              | 63                                                                                | 18                                                                                  | 356                                                                                 | 23                                                                                  |
| Future Volume (veh/h)        | 51                                                                                | 106                                                                               | 89                                                                                | 109                                                                               | 93                                                                                | 15                                                                                | 126                                                                               | 1266                                                                              | 63                                                                                | 18                                                                                  | 356                                                                                 | 23                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.97                                                                              | 0.99                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                                |                                                                                     | 0.97                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                                | 1856                                                                                | 1856                                                                                |
| Adj Flow Rate, veh/h         | 52                                                                                | 108                                                                               | 45                                                                                | 111                                                                               | 95                                                                                | 10                                                                                | 129                                                                               | 1292                                                                              | 45                                                                                | 18                                                                                  | 363                                                                                 | 16                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                   | 3                                                                                   | 3                                                                                   |
| Cap, veh/h                   | 220                                                                               | 200                                                                               | 164                                                                               | 232                                                                               | 231                                                                               | 24                                                                                | 505                                                                               | 1630                                                                              | 57                                                                                | 142                                                                                 | 1484                                                                                | 65                                                                                  |
| Arrive On Green              | 0.04                                                                              | 0.11                                                                              | 0.11                                                                              | 0.07                                                                              | 0.14                                                                              | 0.14                                                                              | 0.05                                                                              | 0.47                                                                              | 0.47                                                                              | 0.02                                                                                | 0.43                                                                                | 0.43                                                                                |
| Sat Flow, veh/h              | 1767                                                                              | 1856                                                                              | 1529                                                                              | 1767                                                                              | 1644                                                                              | 173                                                                               | 1767                                                                              | 3472                                                                              | 121                                                                               | 1767                                                                                | 3435                                                                                | 151                                                                                 |
| Grp Volume(v), veh/h         | 52                                                                                | 108                                                                               | 45                                                                                | 111                                                                               | 0                                                                                 | 105                                                                               | 129                                                                               | 655                                                                               | 682                                                                               | 18                                                                                  | 186                                                                                 | 193                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1767                                                                              | 1856                                                                              | 1529                                                                              | 1767                                                                              | 0                                                                                 | 1817                                                                              | 1767                                                                              | 1763                                                                              | 1830                                                                              | 1767                                                                                | 1763                                                                                | 1824                                                                                |
| Q Serve(g_s), s              | 3.9                                                                               | 8.3                                                                               | 4.1                                                                               | 8.2                                                                               | 0.0                                                                               | 7.9                                                                               | 5.9                                                                               | 47.1                                                                              | 47.2                                                                              | 0.8                                                                                 | 10.0                                                                                | 10.1                                                                                |
| Cycle Q Clear(g_c), s        | 3.9                                                                               | 8.3                                                                               | 4.1                                                                               | 8.2                                                                               | 0.0                                                                               | 7.9                                                                               | 5.9                                                                               | 47.1                                                                              | 47.2                                                                              | 0.8                                                                                 | 10.0                                                                                | 10.1                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.10                                                                              | 1.00                                                                              |                                                                                   | 0.07                                                                              | 1.00                                                                                |                                                                                     | 0.08                                                                                |
| Lane Grp Cap(c), veh/h       | 220                                                                               | 200                                                                               | 164                                                                               | 232                                                                               | 0                                                                                 | 255                                                                               | 505                                                                               | 827                                                                               | 859                                                                               | 142                                                                                 | 762                                                                                 | 788                                                                                 |
| V/C Ratio(X)                 | 0.24                                                                              | 0.54                                                                              | 0.27                                                                              | 0.48                                                                              | 0.00                                                                              | 0.41                                                                              | 0.26                                                                              | 0.79                                                                              | 0.79                                                                              | 0.13                                                                                | 0.24                                                                                | 0.25                                                                                |
| Avail Cap(c_a), veh/h        | 423                                                                               | 372                                                                               | 307                                                                               | 353                                                                               | 0                                                                                 | 340                                                                               | 584                                                                               | 827                                                                               | 859                                                                               | 345                                                                                 | 762                                                                                 | 788                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.56                                                                              | 0.56                                                                              | 0.56                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 56.8                                                                              | 63.4                                                                              | 61.5                                                                              | 53.0                                                                              | 0.0                                                                               | 58.8                                                                              | 20.9                                                                              | 33.6                                                                              | 33.7                                                                              | 29.0                                                                                | 27.0                                                                                | 27.1                                                                                |
| Incr Delay (d2), s/veh       | 0.5                                                                               | 2.3                                                                               | 0.9                                                                               | 1.5                                                                               | 0.0                                                                               | 1.1                                                                               | 0.1                                                                               | 4.4                                                                               | 4.3                                                                               | 0.4                                                                                 | 0.8                                                                                 | 0.7                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.2                                                                               | 7.3                                                                               | 2.9                                                                               | 6.8                                                                               | 0.0                                                                               | 6.7                                                                               | 4.5                                                                               | 26.7                                                                              | 27.6                                                                              | 0.7                                                                                 | 7.9                                                                                 | 8.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 57.4                                                                              | 65.7                                                                              | 62.4                                                                              | 54.6                                                                              | 0.0                                                                               | 59.9                                                                              | 21.0                                                                              | 38.1                                                                              | 38.0                                                                              | 29.4                                                                                | 27.8                                                                                | 27.8                                                                                |
| LnGrp LOS                    | E                                                                                 | E                                                                                 | E                                                                                 | D                                                                                 |                                                                                   | E                                                                                 | C                                                                                 | D                                                                                 | D                                                                                 | C                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 205                                                                               |                                                                                   |                                                                                   | 216                                                                               |                                                                                   |                                                                                   | 1466                                                                              |                                                                                   |                                                                                   | 397                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.9                                                                              |                                                                                   |                                                                                   | 57.1                                                                              |                                                                                   |                                                                                   | 36.5                                                                              |                                                                                   |                                                                                   | 27.9                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.7                                                                               | 75.6                                                                              | 14.7                                                                              | 21.0                                                                              | 13.3                                                                              | 70.0                                                                              | 9.8                                                                               | 26.0                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.1                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.9                                                                              | 59.8                                                                              | 20.5                                                                              | 30.1                                                                              | 14.7                                                                              | 64.8                                                                              | 22.5                                                                              | 28.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s  | 12.8                                                                              | 49.2                                                                              | 10.2                                                                              | 10.3                                                                              | 7.9                                                                               | 12.1                                                                              | 5.9                                                                               | 9.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 6.4                                                                               | 0.2                                                                               | 0.6                                                                               | 0.2                                                                               | 2.5                                                                               | 0.1                                                                               | 0.4                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 39.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 4: Rock Blvd &amp; Hymer Ave

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 236                                                                               | 7                                                                                 | 10                                                                                | 21                                                                                | 1                                                                                 | 175                                                                               | 3                                                                                 | 1497                                                                              | 14                                                                                | 64                                                                                  | 567                                                                                 | 45                                                                                  |
| Future Volume (veh/h)        | 236                                                                               | 7                                                                                 | 10                                                                                | 21                                                                                | 1                                                                                 | 175                                                                               | 3                                                                                 | 1497                                                                              | 14                                                                                | 64                                                                                  | 567                                                                                 | 45                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 241                                                                               | 7                                                                                 | 7                                                                                 | 21                                                                                | 1                                                                                 | 125                                                                               | 3                                                                                 | 1528                                                                              | 10                                                                                | 65                                                                                  | 579                                                                                 | 32                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 266                                                                               | 8                                                                                 | 8                                                                                 | 21                                                                                | 1                                                                                 | 128                                                                               | 422                                                                               | 1644                                                                              | 11                                                                                | 121                                                                                 | 1643                                                                                | 91                                                                                  |
| Arrive On Green              | 0.16                                                                              | 0.16                                                                              | 0.16                                                                              | 0.10                                                                              | 0.10                                                                              | 0.10                                                                              | 0.00                                                                              | 0.47                                                                              | 0.47                                                                              | 0.06                                                                                | 0.98                                                                                | 0.98                                                                                |
| Sat Flow, veh/h              | 1640                                                                              | 48                                                                                | 48                                                                                | 222                                                                               | 11                                                                                | 1324                                                                              | 1739                                                                              | 3532                                                                              | 23                                                                                | 1739                                                                                | 3341                                                                                | 184                                                                                 |
| Grp Volume(v), veh/h         | 255                                                                               | 0                                                                                 | 0                                                                                 | 147                                                                               | 0                                                                                 | 0                                                                                 | 3                                                                                 | 750                                                                               | 788                                                                               | 65                                                                                  | 300                                                                                 | 311                                                                                 |
| Grp Sat Flow(s), veh/h/ln    | 1735                                                                              | 0                                                                                 | 0                                                                                 | 1557                                                                              | 0                                                                                 | 0                                                                                 | 1739                                                                              | 1735                                                                              | 1821                                                                              | 1739                                                                                | 1735                                                                                | 1791                                                                                |
| Q Serve(g_s), s              | 21.7                                                                              | 0.0                                                                               | 0.0                                                                               | 14.1                                                                              | 0.0                                                                               | 0.0                                                                               | 0.1                                                                               | 61.1                                                                              | 61.2                                                                              | 2.9                                                                                 | 0.6                                                                                 | 0.6                                                                                 |
| Cycle Q Clear(g_c), s        | 21.7                                                                              | 0.0                                                                               | 0.0                                                                               | 14.1                                                                              | 0.0                                                                               | 0.0                                                                               | 0.1                                                                               | 61.1                                                                              | 61.2                                                                              | 2.9                                                                                 | 0.6                                                                                 | 0.6                                                                                 |
| Prop In Lane                 | 0.95                                                                              |                                                                                   | 0.03                                                                              | 0.14                                                                              |                                                                                   | 0.85                                                                              | 1.00                                                                              |                                                                                   | 0.01                                                                              | 1.00                                                                                |                                                                                     | 0.10                                                                                |
| Lane Grp Cap(c), veh/h       | 282                                                                               | 0                                                                                 | 0                                                                                 | 150                                                                               | 0                                                                                 | 0                                                                                 | 422                                                                               | 807                                                                               | 847                                                                               | 121                                                                                 | 853                                                                                 | 881                                                                                 |
| V/C Ratio(X)                 | 0.91                                                                              | 0.00                                                                              | 0.00                                                                              | 0.98                                                                              | 0.00                                                                              | 0.00                                                                              | 0.01                                                                              | 0.93                                                                              | 0.93                                                                              | 0.54                                                                                | 0.35                                                                                | 0.35                                                                                |
| Avail Cap(c_a), veh/h        | 341                                                                               | 0                                                                                 | 0                                                                                 | 150                                                                               | 0                                                                                 | 0                                                                                 | 594                                                                               | 807                                                                               | 847                                                                               | 247                                                                                 | 853                                                                                 | 881                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 0.63                                                                              | 0.63                                                                              | 0.63                                                                              | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh     | 61.7                                                                              | 0.0                                                                               | 0.0                                                                               | 67.6                                                                              | 0.0                                                                               | 0.0                                                                               | 21.2                                                                              | 37.8                                                                              | 37.8                                                                              | 33.5                                                                                | 0.6                                                                                 | 0.6                                                                                 |
| Incr Delay (d2), s/veh       | 23.8                                                                              | 0.0                                                                               | 0.0                                                                               | 66.1                                                                              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 13.1                                                                              | 12.7                                                                              | 3.6                                                                                 | 1.1                                                                                 | 1.1                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 17.0                                                                              | 0.0                                                                               | 0.0                                                                               | 13.2                                                                              | 0.0                                                                               | 0.0                                                                               | 0.1                                                                               | 35.5                                                                              | 37.0                                                                              | 2.3                                                                                 | 0.8                                                                                 | 0.8                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 85.5                                                                              | 0.0                                                                               | 0.0                                                                               | 133.7                                                                             | 0.0                                                                               | 0.0                                                                               | 21.2                                                                              | 50.8                                                                              | 50.5                                                                              | 37.1                                                                                | 1.7                                                                                 | 1.7                                                                                 |
| LnGrp LOS                    | F                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | C                                                                                 | D                                                                                 | D                                                                                 | D                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 255                                                                               |                                                                                   |                                                                                   | 147                                                                               |                                                                                   |                                                                                   | 1541                                                                              |                                                                                   |                                                                                   | 676                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 85.5                                                                              |                                                                                   |                                                                                   | 133.7                                                                             |                                                                                   |                                                                                   | 50.6                                                                              |                                                                                   |                                                                                   | 5.1                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | F                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                   | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.2                                                                               | 75.0                                                                              |                                                                                   | 20.0                                                                              | 5.2                                                                               | 79.0                                                                              |                                                                                   | 29.8                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 5.2                                                                               |                                                                                   | 5.5                                                                               | 4.6                                                                               | 5.2                                                                               |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 15.5                                                                              | 69.8                                                                              |                                                                                   | 14.5                                                                              | 15.4                                                                              | 69.8                                                                              |                                                                                   | 29.5                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s  | 14.9                                                                              | 63.2                                                                              |                                                                                   | 16.1                                                                              | 2.1                                                                               | 2.6                                                                               |                                                                                   | 23.7                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 4.9                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 4.3                                                                               |                                                                                   | 0.7                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 46.9                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 5: Rock Blvd &amp; Glendale Ave

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| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 189                                                                               | 262                                                                               | 115                                                                               | 77                                                                                | 407                                                                               | 392                                                                               | 58                                                                                | 941                                                                               | 52                                                                                  | 120                                                                                 | 394                                                                                 | 111                                                                                 |
| Future Volume (veh/h)                                                                              | 189                                                                               | 262                                                                               | 115                                                                               | 77                                                                                | 407                                                                               | 392                                                                               | 58                                                                                | 941                                                                               | 52                                                                                  | 120                                                                                 | 394                                                                                 | 111                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 203                                                                               | 282                                                                               | 59                                                                                | 83                                                                                | 438                                                                               | 210                                                                               | 62                                                                                | 1012                                                                              | 28                                                                                  | 129                                                                                 | 424                                                                                 | 59                                                                                  |
| Peak Hour Factor                                                                                   | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 226                                                                               | 782                                                                               | 343                                                                               | 103                                                                               | 540                                                                               | 231                                                                               | 94                                                                                | 1257                                                                              | 548                                                                                 | 175                                                                                 | 1257                                                                                | 549                                                                                 |
| Arrive On Green                                                                                    | 0.13                                                                              | 0.23                                                                              | 0.23                                                                              | 0.06                                                                              | 0.16                                                                              | 0.16                                                                              | 0.02                                                                              | 0.12                                                                              | 0.12                                                                                | 0.10                                                                                | 0.73                                                                                | 0.73                                                                                |
| Sat Flow, veh/h                                                                                    | 1725                                                                              | 3441                                                                              | 1511                                                                              | 1725                                                                              | 3441                                                                              | 1476                                                                              | 1725                                                                              | 3441                                                                              | 1501                                                                                | 3346                                                                                | 3441                                                                                | 1502                                                                                |
| Grp Volume(v), veh/h                                                                               | 203                                                                               | 282                                                                               | 59                                                                                | 83                                                                                | 438                                                                               | 210                                                                               | 62                                                                                | 1012                                                                              | 28                                                                                  | 129                                                                                 | 424                                                                                 | 59                                                                                  |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1725                                                                              | 1721                                                                              | 1511                                                                              | 1725                                                                              | 1721                                                                              | 1476                                                                              | 1725                                                                              | 1721                                                                              | 1501                                                                                | 1673                                                                                | 1721                                                                                | 1502                                                                                |
| Q Serve(g_s), s                                                                                    | 17.4                                                                              | 10.3                                                                              | 3.0                                                                               | 7.1                                                                               | 18.4                                                                              | 14.2                                                                              | 5.4                                                                               | 43.0                                                                              | 2.5                                                                                 | 5.6                                                                                 | 6.6                                                                                 | 1.7                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 17.4                                                                              | 10.3                                                                              | 3.0                                                                               | 7.1                                                                               | 18.4                                                                              | 14.2                                                                              | 5.4                                                                               | 43.0                                                                              | 2.5                                                                                 | 5.6                                                                                 | 6.6                                                                                 | 1.7                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 226                                                                               | 782                                                                               | 343                                                                               | 103                                                                               | 540                                                                               | 231                                                                               | 94                                                                                | 1257                                                                              | 548                                                                                 | 175                                                                                 | 1257                                                                                | 549                                                                                 |
| V/C Ratio(X)                                                                                       | 0.90                                                                              | 0.36                                                                              | 0.17                                                                              | 0.81                                                                              | 0.81                                                                              | 0.91                                                                              | 0.66                                                                              | 0.81                                                                              | 0.05                                                                                | 0.74                                                                                | 0.34                                                                                | 0.11                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 281                                                                               | 789                                                                               | 346                                                                               | 222                                                                               | 674                                                                               | 289                                                                               | 225                                                                               | 1257                                                                              | 548                                                                                 | 435                                                                                 | 1257                                                                                | 549                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.33                                                                              | 0.33                                                                              | 0.33                                                                                | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.70                                                                              | 0.70                                                                              | 0.70                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh                                                                           | 64.2                                                                              | 48.8                                                                              | 19.3                                                                              | 69.7                                                                              | 61.1                                                                              | 28.4                                                                              | 72.3                                                                              | 60.8                                                                              | 43.0                                                                                | 66.1                                                                                | 13.7                                                                                | 13.1                                                                                |
| Incr Delay (d2), s/veh                                                                             | 25.7                                                                              | 0.3                                                                               | 0.2                                                                               | 13.6                                                                              | 6.0                                                                               | 26.6                                                                              | 5.5                                                                               | 4.0                                                                               | 0.1                                                                                 | 5.7                                                                                 | 0.7                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 14.3                                                                              | 8.0                                                                               | 3.2                                                                               | 6.4                                                                               | 13.3                                                                              | 11.1                                                                              | 4.7                                                                               | 27.0                                                                              | 1.7                                                                                 | 4.4                                                                                 | 4.2                                                                                 | 1.2                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 89.9                                                                              | 49.1                                                                              | 19.6                                                                              | 83.3                                                                              | 67.1                                                                              | 54.9                                                                              | 77.8                                                                              | 64.7                                                                              | 43.1                                                                                | 71.9                                                                                | 14.4                                                                                | 13.4                                                                                |
| LnGrp LOS                                                                                          | F                                                                                 | D                                                                                 | B                                                                                 | F                                                                                 | E                                                                                 | D                                                                                 | E                                                                                 | E                                                                                 | D                                                                                   | E                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h                                                                                | 544                                                                               |                                                                                   |                                                                                   | 731                                                                               |                                                                                   |                                                                                   | 1102                                                                              |                                                                                   |                                                                                     | 612                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 61.1                                                                              |                                                                                   |                                                                                   | 65.5                                                                              |                                                                                   |                                                                                   | 64.9                                                                              |                                                                                   |                                                                                     | 26.4                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 33.3                                                                              | 60.2                                                                              | 14.7                                                                              | 39.7                                                                              | 13.5                                                                              | 60.0                                                                              | 25.2                                                                              | 29.1                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.5                                                                               | * 5.4                                                                             | 5.7                                                                               | 5.6                                                                               | 5.4                                                                               | 5.2                                                                               | 5.6                                                                               | 5.6                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 19.5                                                                              | * 55                                                                              | 19.3                                                                              | 34.4                                                                              | 19.6                                                                              | 54.8                                                                              | 24.4                                                                              | 29.4                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s                                                                       | 17.6                                                                              | 45.0                                                                              | 9.1                                                                               | 12.3                                                                              | 7.4                                                                               | 8.6                                                                               | 19.4                                                                              | 20.4                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.3                                                                               | 5.0                                                                               | 0.1                                                                               | 2.0                                                                               | 0.1                                                                               | 3.4                                                                               | 0.2                                                                               | 2.5                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 56.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 6: Rock Blvd &amp; Greg St

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                                | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                    |  |  |  |
| Traffic Volume (veh/h)       | 204                                                                               | 236                                                                               | 16                                                                                | 41                                                                                | 469                                                                               | 195                                                                               | 40                                                                                | 630                                                                               | 35                                                                                 | 102                                                                                 | 280                                                                                 | 177                                                                                 |
| Future Volume (veh/h)        | 204                                                                               | 236                                                                               | 16                                                                                | 41                                                                                | 469                                                                               | 195                                                                               | 40                                                                                | 630                                                                               | 35                                                                                 | 102                                                                                 | 280                                                                                 | 177                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 0.99                                                                              |                                                                                   | 0.99                                                                               | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                               | 1856                                                                                | 1856                                                                                | 1856                                                                                |
| Adj Flow Rate, veh/h         | 224                                                                               | 259                                                                               | 13                                                                                | 45                                                                                | 515                                                                               | 149                                                                               | 44                                                                                | 692                                                                               | 26                                                                                 | 112                                                                                 | 308                                                                                 | 97                                                                                  |
| Peak Hour Factor             | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                               | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                  | 3                                                                                   | 3                                                                                   | 3                                                                                   |
| Cap, veh/h                   | 274                                                                               | 1046                                                                              | 52                                                                                | 343                                                                               | 600                                                                               | 173                                                                               | 258                                                                               | 804                                                                               | 30                                                                                 | 578                                                                                 | 1729                                                                                | 768                                                                                 |
| Arrive On Green              | 0.11                                                                              | 0.31                                                                              | 0.31                                                                              | 0.03                                                                              | 0.22                                                                              | 0.22                                                                              | 0.03                                                                              | 0.23                                                                              | 0.23                                                                               | 0.58                                                                                | 0.98                                                                                | 0.98                                                                                |
| Sat Flow, veh/h              | 1767                                                                              | 3417                                                                              | 171                                                                               | 1767                                                                              | 2692                                                                              | 775                                                                               | 1767                                                                              | 3464                                                                              | 130                                                                                | 1767                                                                                | 3526                                                                                | 1567                                                                                |
| Grp Volume(v), veh/h         | 224                                                                               | 133                                                                               | 139                                                                               | 45                                                                                | 336                                                                               | 328                                                                               | 44                                                                                | 352                                                                               | 366                                                                                | 112                                                                                 | 308                                                                                 | 97                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1767                                                                              | 1763                                                                              | 1825                                                                              | 1767                                                                              | 1763                                                                              | 1704                                                                              | 1767                                                                              | 1763                                                                              | 1831                                                                               | 1767                                                                                | 1763                                                                                | 1567                                                                                |
| Q Serve(g_s), s              | 14.2                                                                              | 8.5                                                                               | 8.6                                                                               | 2.9                                                                               | 27.5                                                                              | 27.8                                                                              | 3.0                                                                               | 28.7                                                                              | 28.8                                                                               | 0.0                                                                                 | 0.3                                                                                 | 0.2                                                                                 |
| Cycle Q Clear(g_c), s        | 14.2                                                                              | 8.5                                                                               | 8.6                                                                               | 2.9                                                                               | 27.5                                                                              | 27.8                                                                              | 3.0                                                                               | 28.7                                                                              | 28.8                                                                               | 0.0                                                                                 | 0.3                                                                                 | 0.2                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.09                                                                              | 1.00                                                                              |                                                                                   | 0.45                                                                              | 1.00                                                                              |                                                                                   | 0.07                                                                               | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 274                                                                               | 540                                                                               | 559                                                                               | 343                                                                               | 393                                                                               | 380                                                                               | 258                                                                               | 409                                                                               | 425                                                                                | 578                                                                                 | 1729                                                                                | 768                                                                                 |
| V/C Ratio(X)                 | 0.82                                                                              | 0.25                                                                              | 0.25                                                                              | 0.13                                                                              | 0.86                                                                              | 0.86                                                                              | 0.17                                                                              | 0.86                                                                              | 0.86                                                                               | 0.19                                                                                | 0.18                                                                                | 0.13                                                                                |
| Avail Cap(c_a), veh/h        | 425                                                                               | 581                                                                               | 601                                                                               | 581                                                                               | 522                                                                               | 504                                                                               | 437                                                                               | 409                                                                               | 425                                                                                | 578                                                                                 | 1729                                                                                | 768                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                |
| Uniform Delay (d), s/veh     | 40.4                                                                              | 39.1                                                                              | 39.1                                                                              | 43.2                                                                              | 56.0                                                                              | 56.1                                                                              | 48.2                                                                              | 55.3                                                                              | 55.3                                                                               | 22.2                                                                                | 0.7                                                                                 | 0.7                                                                                 |
| Incr Delay (d2), s/veh       | 7.0                                                                               | 0.2                                                                               | 0.2                                                                               | 0.2                                                                               | 10.4                                                                              | 11.4                                                                              | 0.3                                                                               | 20.5                                                                              | 20.0                                                                               | 0.2                                                                                 | 0.2                                                                                 | 0.3                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 1.0                                                                               | 6.8                                                                               | 7.1                                                                               | 2.4                                                                               | 19.4                                                                              | 19.1                                                                              | 2.5                                                                               | 21.5                                                                              | 22.2                                                                               | 3.2                                                                                 | 0.3                                                                                 | 0.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 47.4                                                                              | 39.3                                                                              | 39.3                                                                              | 43.3                                                                              | 66.3                                                                              | 67.4                                                                              | 48.5                                                                              | 75.8                                                                              | 75.3                                                                               | 22.3                                                                                | 0.9                                                                                 | 1.1                                                                                 |
| LnGrp LOS                    | D                                                                                 | D                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | E                                                                                 | D                                                                                 | E                                                                                 | E                                                                                  | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 496                                                                               |                                                                                   |                                                                                   | 709                                                                               |                                                                                   |                                                                                   | 762                                                                               |                                                                                   |                                                                                    | 517                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 43.0                                                                              |                                                                                   |                                                                                   | 65.4                                                                              |                                                                                   |                                                                                   | 74.0                                                                              |                                                                                   |                                                                                    | 5.6                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                    | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 48.8                                                                              | 40.0                                                                              | 9.7                                                                               | 51.5                                                                              | 9.8                                                                               | 79.0                                                                              | 22.2                                                                              | 39.0                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.4                                                                               | 5.2                                                                               | 5.5                                                                               | 5.6                                                                               | 5.5                                                                               | * 5.4                                                                             | 5.5                                                                               | 5.6                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.6                                                                              | 34.8                                                                              | 24.5                                                                              | 49.4                                                                              | 19.5                                                                              | * 35                                                                              | 29.5                                                                              | 44.4                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I2), s | 12.0                                                                              | 30.8                                                                              | 4.9                                                                               | 10.6                                                                              | 5.0                                                                               | 2.3                                                                               | 16.2                                                                              | 29.8                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.2                                                                               | 1.6                                                                               | 0.1                                                                               | 1.7                                                                               | 0.1                                                                               | 2.5                                                                               | 0.5                                                                               | 3.7                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |

## Intersection Summary

HCM 7th Control Delay, s/veh 51.1

HCM 7th LOS D

## Notes

\* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Future Forecast Projections

| Location -->               | Rock Blvd         | Rock Blvd     | Rock Blvd     | 15th St      | C St         | C St         | Rock Blvd         | Rock Blvd         | Rock Blvd         | Glendale Ave | Glendale Ave | Rock Blvd     | Greg St      | Greg St      |
|----------------------------|-------------------|---------------|---------------|--------------|--------------|--------------|-------------------|-------------------|-------------------|--------------|--------------|---------------|--------------|--------------|
|                            | South of McCarran | North of 15th | South of 15th | East of Rock | West of Rock | East of Rock | North of Glendale | South of Glendale | South of Glendale | East of Rock | West of Rock | South of Greg | West of Rock | East of Rock |
| 2024 NDOT AADT             | 9800              | 14,300        | 13,000        | 1,500        | 2,800        | 1,500        | 27,000            | 21,000            | 21,000            | 15,200       | 12,200       | 11,100        | 13,100       | 11,900       |
| Demand Model Volumes       |                   |               |               |              |              |              |                   |                   |                   |              |              |               |              |              |
| 2025 RTC                   | 8499              | 13,577        | 12,964        | 974          | 2,854        | 488          | 12,612            | 10,643            | 10,643            | 2,492        | 1,085        | 1,977         | 7,770        | 3,004        |
| 2050 RTC                   | 11247             | 13,428        | 11,565        | 1,266        | 1,709        | 1,177        | 12,527            | 14,562            | 14,562            | 9,412        | 2,625        | 5,728         | 7,644        | 2,725        |
| Model Difference 2050-2025 | 2,748             | -149          | -1,399        | 292          | -1,145       | 689          | -85               | 3,919             | 3,919             | 6,920        | 1,540        | 3,751         | -126         | -279         |
| Growth Rates               |                   |               |               |              |              |              |                   |                   |                   |              |              |               |              |              |
| 25 Years % Change          | 32%               | -1%           | -11%          | 30%          | -40%         | 141%         | -1%               | 37%               | 37%               | 278%         | 142%         | 190%          | -2%          | -9%          |
| % per year                 | 1.3%              | 0.0%          | -0.4%         | 1.2%         | -1.6%        | 5.6%         | 0.0%              | 1.5%              | 1.5%              | 11.1%        | 5.7%         | 7.6%          | -0.1%        | -0.4%        |
| 25 years growth factor     | 1.3               | 1.0           | 0.9           | 1.3          | 0.6          | 2.4          | 1.0               | 1.4               | 1.4               | 3.8          | 2.4          | 2.9           | 1.0          | 0.9          |
| Growth Difference          |                   |               |               |              |              |              |                   |                   |                   |              |              |               |              |              |
| 25 Years Increase          | 2,748             | -149          | -1,399        | 292          | -1,145       | 689          | -85               | 3,919             | 3,919             | 6,920        | 1,540        | 3,751         | -126         | -279         |
| % Change                   | 28%               | -1%           | -11%          | 19%          | -41%         | 46%          | 0%                | 19%               | 19%               | 46%          | 13%          | 34%           | -1%          | -2%          |
| % per year                 | 1.1%              | 0.0%          | -0.4%         | 0.8%         | -1.6%        | 1.8%         | 0.0%              | 0.7%              | 0.7%              | 1.8%         | 0.5%         | 1.4%          | 0.0%         | -0.1%        |
| 25 years growth factor     | 1.3               | 1.0           | 0.9           | 1.2          | 0.6          | 1.5          | 1.0               | 1.2               | 1.2               | 1.5          | 1.1          | 1.3           | 1.0          | 1.0          |

## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection              |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 3.8                                                                               |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                  | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations       |  |  |  |      |  |  |
| Traffic Vol, veh/h        | 10                                                                                | 180                                                                               | 200                                                                               | 30   | 290                                                                               | 540                                                                               |
| Future Vol, veh/h         | 10                                                                                | 180                                                                               | 200                                                                               | 30   | 290                                                                               | 540                                                                               |
| Conflicting Peds, #/hr    | 0                                                                                 | 2                                                                                 | 0                                                                                 | 2    | 2                                                                                 | 0                                                                                 |
| Sign Control              | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized            | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length            | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                  | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor          | 86                                                                                | 86                                                                                | 86                                                                                | 86   | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3    | 3                                                                                 | 3                                                                                 |
| Mvmt Flow                 | 12                                                                                | 209                                                                               | 233                                                                               | 35   | 337                                                                               | 628                                                                               |
| Major/Minor               | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All      | 1240                                                                              | 138                                                                               | 0                                                                                 | 0    | 269                                                                               | 0                                                                                 |
| Stage 1                   | 252                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                   | 988                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy             | 6.86                                                                              | 6.96                                                                              | -                                                                                 | -    | 4.16                                                                              | -                                                                                 |
| Critical Hdwy Stg 1       | 5.86                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2       | 5.86                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy            | 3.53                                                                              | 3.33                                                                              | -                                                                                 | -    | 2.23                                                                              | -                                                                                 |
| Pot Cap-1 Maneuver        | 166                                                                               | 882                                                                               | -                                                                                 | -    | 1284                                                                              | -                                                                                 |
| Stage 1                   | 764                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                   | 319                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %        |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver        | 122                                                                               | 879                                                                               | -                                                                                 | -    | 1281                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver        | 122                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                   | 762                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                   | 235                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                  | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v    | 11.8                                                                              | 0                                                                                 | 3.08                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                   | B                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt     | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)          | -                                                                                 | - 122 879                                                                         | 1281                                                                              | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio        | -                                                                                 | - 0.095 0.238                                                                     | 0.263                                                                             | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh) | -                                                                                 | - 37.6 10.4                                                                       | 8.8                                                                               | -    |                                                                                   |                                                                                   |
| HCM Lane LOS              | -                                                                                 | - E B                                                                             | A                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)     | -                                                                                 | - 0.3 0.9                                                                         | 1.1                                                                               | -    |                                                                                   |                                                                                   |



## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 5                                                                                 | 0                                                                                 | 10                                                                                | 45                                                                                | 1                                                                                 | 20                                                                                | 5                                                                                   | 315                                                                                 | 15                                                                                  | 20                                                                                  | 910                                                                                 | 5                                                                                   |
| Future Volume (veh/h)        | 5                                                                                 | 0                                                                                 | 10                                                                                | 45                                                                                | 1                                                                                 | 20                                                                                | 5                                                                                   | 315                                                                                 | 15                                                                                  | 20                                                                                  | 910                                                                                 | 5                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 5                                                                                 | 0                                                                                 | 10                                                                                | 47                                                                                | 1                                                                                 | 15                                                                                | 5                                                                                   | 332                                                                                 | 8                                                                                   | 21                                                                                  | 958                                                                                 | 4                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 49                                                                                | 10                                                                                | 46                                                                                | 118                                                                               | 4                                                                                 | 66                                                                                | 267                                                                                 | 1794                                                                                | 799                                                                                 | 613                                                                                 | 1878                                                                                | 8                                                                                   |
| Arrive On Green              | 0.05                                                                              | 0.00                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.01                                                                                | 1.00                                                                                | 1.00                                                                                | 0.02                                                                                | 0.53                                                                                | 0.53                                                                                |
| Sat Flow, veh/h              | 290                                                                               | 224                                                                               | 1028                                                                              | 1371                                                                              | 98                                                                                | 1465                                                                              | 1739                                                                                | 3469                                                                                | 1544                                                                                | 1739                                                                                | 3543                                                                                | 15                                                                                  |
| Grp Volume(v), veh/h         | 15                                                                                | 0                                                                                 | 0                                                                                 | 47                                                                                | 0                                                                                 | 16                                                                                | 5                                                                                   | 332                                                                                 | 8                                                                                   | 21                                                                                  | 469                                                                                 | 493                                                                                 |
| Grp Sat Flow(s), veh/h/ln    | 1543                                                                              | 0                                                                                 | 0                                                                                 | 1371                                                                              | 0                                                                                 | 1562                                                                              | 1739                                                                                | 1735                                                                                | 1544                                                                                | 1739                                                                                | 1735                                                                                | 1823                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 3.0                                                                               | 0.0                                                                               | 1.3                                                                               | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 23.5                                                                                | 23.5                                                                                |
| Cycle Q Clear(g_c), s        | 1.2                                                                               | 0.0                                                                               | 0.0                                                                               | 4.2                                                                               | 0.0                                                                               | 1.3                                                                               | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 23.5                                                                                | 23.5                                                                                |
| Prop In Lane                 | 0.33                                                                              |                                                                                   | 0.67                                                                              | 1.00                                                                              |                                                                                   | 0.94                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.01                                                                                |
| Lane Grp Cap(c), veh/h       | 105                                                                               | 0                                                                                 | 0                                                                                 | 118                                                                               | 0                                                                                 | 70                                                                                | 267                                                                                 | 1794                                                                                | 799                                                                                 | 613                                                                                 | 920                                                                                 | 967                                                                                 |
| V/C Ratio(X)                 | 0.14                                                                              | 0.00                                                                              | 0.00                                                                              | 0.40                                                                              | 0.00                                                                              | 0.23                                                                              | 0.02                                                                                | 0.19                                                                                | 0.01                                                                                | 0.03                                                                                | 0.51                                                                                | 0.51                                                                                |
| Avail Cap(c_a), veh/h        | 478                                                                               | 0                                                                                 | 0                                                                                 | 464                                                                               | 0                                                                                 | 464                                                                               | 386                                                                                 | 1794                                                                                | 799                                                                                 | 709                                                                                 | 920                                                                                 | 967                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.99                                                                                | 0.99                                                                                | 0.99                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 62.1                                                                              | 0.0                                                                               | 0.0                                                                               | 63.5                                                                              | 0.0                                                                               | 62.2                                                                              | 17.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 14.6                                                                                | 20.4                                                                                | 20.4                                                                                |
| Incr Delay (d2), s/veh       | 0.6                                                                               | 0.0                                                                               | 0.0                                                                               | 2.1                                                                               | 0.0                                                                               | 1.6                                                                               | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 2.0                                                                                 | 1.9                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.9                                                                               | 0.0                                                                               | 0.0                                                                               | 3.0                                                                               | 0.0                                                                               | 1.0                                                                               | 0.1                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.6                                                                                 | 15.2                                                                                | 15.8                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 62.7                                                                              | 0.0                                                                               | 0.0                                                                               | 65.6                                                                              | 0.0                                                                               | 63.8                                                                              | 17.1                                                                                | 0.2                                                                                 | 0.0                                                                                 | 14.7                                                                                | 22.4                                                                                | 22.3                                                                                |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | B                                                                                   | A                                                                                   | A                                                                                   | B                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 15                                                                                |                                                                                   |                                                                                   | 63                                                                                |                                                                                   |                                                                                   | 345                                                                                 |                                                                                     |                                                                                     | 983                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.7                                                                              |                                                                                   |                                                                                   | 65.1                                                                              |                                                                                   |                                                                                   | 0.5                                                                                 |                                                                                     |                                                                                     | 22.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.5                                                                               | 75.0                                                                              |                                                                                   | 11.0                                                                              | 5.8                                                                               | 76.8                                                                              |                                                                                     | 11.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 40.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 40.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.8                                                                               | 2.0                                                                               |                                                                                   | 3.2                                                                               | 2.2                                                                               | 25.5                                                                              |                                                                                     | 6.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.5                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 7.7                                                                               |                                                                                     | 0.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 19.2                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 3: Rock Blvd &amp; Victorian Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |                                                                                   |  |  |                                                                                   |  |  |  |
| Traffic Volume (veh/h)                                                                             | 20                                                                                | 70                                                                                | 130                                                                               | 210                                                                               | 130                                                                               | 20                                                                                | 60                                                                                | 300                                                                               | 30                                                                                | 60                                                                                  | 900                                                                                 | 10                                                                                  |
| Future Volume (veh/h)                                                                              | 20                                                                                | 70                                                                                | 130                                                                               | 210                                                                               | 130                                                                               | 20                                                                                | 60                                                                                | 300                                                                               | 30                                                                                | 60                                                                                  | 900                                                                                 | 10                                                                                  |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.99                                                                              | 0.99                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 21                                                                                | 74                                                                                | 69                                                                                | 221                                                                               | 137                                                                               | 15                                                                                | 63                                                                                | 316                                                                               | 23                                                                                | 63                                                                                  | 947                                                                                 | 8                                                                                   |
| Peak Hour Factor                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 249                                                                               | 427                                                                               | 359                                                                               | 297                                                                               | 378                                                                               | 41                                                                                | 570                                                                               | 2008                                                                              | 145                                                                               | 442                                                                                 | 1678                                                                                | 14                                                                                  |
| Arrive On Green                                                                                    | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.06                                                                              | 0.20                                                                              | 0.20                                                                              | 0.07                                                                                | 0.96                                                                                | 0.96                                                                                |
| Sat Flow, veh/h                                                                                    | 1191                                                                              | 1811                                                                              | 1523                                                                              | 1199                                                                              | 1600                                                                              | 175                                                                               | 1725                                                                              | 3253                                                                              | 236                                                                               | 1725                                                                                | 3496                                                                                | 30                                                                                  |
| Grp Volume(v), veh/h                                                                               | 21                                                                                | 74                                                                                | 69                                                                                | 221                                                                               | 0                                                                                 | 152                                                                               | 63                                                                                | 166                                                                               | 173                                                                               | 63                                                                                  | 466                                                                                 | 489                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1191                                                                              | 1811                                                                              | 1523                                                                              | 1199                                                                              | 0                                                                                 | 1775                                                                              | 1725                                                                              | 1721                                                                              | 1768                                                                              | 1725                                                                                | 1721                                                                                | 1805                                                                                |
| Q Serve(g_s), s                                                                                    | 2.0                                                                               | 4.4                                                                               | 4.9                                                                               | 24.3                                                                              | 0.0                                                                               | 9.7                                                                               | 0.0                                                                               | 10.7                                                                              | 10.8                                                                              | 2.8                                                                                 | 3.2                                                                                 | 3.2                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 11.7                                                                              | 4.4                                                                               | 4.9                                                                               | 28.7                                                                              | 0.0                                                                               | 9.7                                                                               | 0.0                                                                               | 10.7                                                                              | 10.8                                                                              | 2.8                                                                                 | 3.2                                                                                 | 3.2                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.10                                                                              | 1.00                                                                              |                                                                                   | 0.13                                                                              | 1.00                                                                                |                                                                                     | 0.02                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 249                                                                               | 427                                                                               | 359                                                                               | 297                                                                               | 0                                                                                 | 419                                                                               | 570                                                                               | 1062                                                                              | 1091                                                                              | 442                                                                                 | 826                                                                                 | 866                                                                                 |
| V/C Ratio(X)                                                                                       | 0.08                                                                              | 0.17                                                                              | 0.19                                                                              | 0.74                                                                              | 0.00                                                                              | 0.36                                                                              | 0.11                                                                              | 0.16                                                                              | 0.16                                                                              | 0.14                                                                                | 0.56                                                                                | 0.56                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 322                                                                               | 538                                                                               | 452                                                                               | 371                                                                               | 0                                                                                 | 527                                                                               | 570                                                                               | 1062                                                                              | 1091                                                                              | 575                                                                                 | 826                                                                                 | 866                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.33                                                                              | 0.33                                                                              | 0.33                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Uniform Delay (d), s/veh                                                                           | 48.0                                                                              | 41.1                                                                              | 41.3                                                                              | 52.5                                                                              | 0.0                                                                               | 43.1                                                                              | 16.7                                                                              | 24.9                                                                              | 24.9                                                                              | 20.6                                                                                | 1.5                                                                                 | 1.5                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 0.1                                                                               | 0.2                                                                               | 0.3                                                                               | 6.1                                                                               | 0.0                                                                               | 0.5                                                                               | 0.1                                                                               | 0.3                                                                               | 0.3                                                                               | 0.1                                                                                 | 2.6                                                                                 | 2.5                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 1.1                                                                               | 3.6                                                                               | 3.4                                                                               | 12.4                                                                              | 0.0                                                                               | 7.8                                                                               | 2.0                                                                               | 8.7                                                                               | 9.0                                                                               | 2.0                                                                                 | 2.2                                                                                 | 2.2                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 48.1                                                                              | 41.3                                                                              | 41.5                                                                              | 58.6                                                                              | 0.0                                                                               | 43.6                                                                              | 16.8                                                                              | 25.2                                                                              | 25.2                                                                              | 20.7                                                                                | 4.1                                                                                 | 4.0                                                                                 |
| LnGrp LOS                                                                                          | D                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 |                                                                                   | D                                                                                 | B                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h                                                                                | 164                                                                               |                                                                                   |                                                                                   | 373                                                                               |                                                                                   |                                                                                   | 402                                                                               |                                                                                   |                                                                                   | 1018                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 42.3                                                                              |                                                                                   |                                                                                   | 52.5                                                                              |                                                                                   |                                                                                   | 23.9                                                                              |                                                                                   |                                                                                   | 5.1                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                   | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 9.6                                                                               | 88.6                                                                              |                                                                                   | 36.8                                                                              | 28.2                                                                              | 70.0                                                                              |                                                                                   | 36.8                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.1                                                                               | * 5.3                                                                             |                                                                                   | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 14.9                                                                              | * 65                                                                              |                                                                                   | 40.1                                                                              | 14.7                                                                              | 64.8                                                                              |                                                                                   | 40.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s                                                                        | 14.8                                                                              | 12.8                                                                              |                                                                                   | 13.7                                                                              | 2.0                                                                               | 5.2                                                                               |                                                                                   | 30.7                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.1                                                                               | 2.2                                                                               |                                                                                   | 0.7                                                                               | 0.1                                                                               | 7.8                                                                               |                                                                                   | 1.2                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 21.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| User approved pedestrian interval to be less than phase max green.                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 4: Rock Blvd &amp; Hymer Ave

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 60                                                                                | 5                                                                                 | 10                                                                                | 10                                                                                | 0                                                                                 | 30                                                                                | 15                                                                                | 490                                                                               | 20                                                                                | 100                                                                                 | 1470                                                                                | 100                                                                                 |
| Future Volume (veh/h)        | 60                                                                                | 5                                                                                 | 10                                                                                | 10                                                                                | 0                                                                                 | 30                                                                                | 15                                                                                | 490                                                                               | 20                                                                                | 100                                                                                 | 1470                                                                                | 100                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                                | 1767                                                                                | 1767                                                                                |
| Adj Flow Rate, veh/h         | 63                                                                                | 5                                                                                 | 6                                                                                 | 11                                                                                | 0                                                                                 | 19                                                                                | 16                                                                                | 516                                                                               | 17                                                                                | 105                                                                                 | 1547                                                                                | 56                                                                                  |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                   | 9                                                                                   | 9                                                                                   |
| Cap, veh/h                   | 85                                                                                | 7                                                                                 | 8                                                                                 | 14                                                                                | 0                                                                                 | 24                                                                                | 236                                                                               | 2407                                                                              | 79                                                                                | 670                                                                                 | 2458                                                                                | 89                                                                                  |
| Arrive On Green              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.03                                                                              | 0.00                                                                              | 0.03                                                                              | 0.02                                                                              | 0.73                                                                              | 0.73                                                                              | 0.04                                                                                | 0.74                                                                                | 0.74                                                                                |
| Sat Flow, veh/h              | 1421                                                                              | 113                                                                               | 135                                                                               | 566                                                                               | 0                                                                                 | 977                                                                               | 1682                                                                              | 3316                                                                              | 109                                                                               | 1682                                                                                | 3301                                                                                | 119                                                                                 |
| Grp Volume(v), veh/h         | 74                                                                                | 0                                                                                 | 0                                                                                 | 30                                                                                | 0                                                                                 | 0                                                                                 | 16                                                                                | 261                                                                               | 272                                                                               | 105                                                                                 | 784                                                                                 | 819                                                                                 |
| Grp Sat Flow(s), veh/h/ln    | 1670                                                                              | 0                                                                                 | 0                                                                                 | 1543                                                                              | 0                                                                                 | 0                                                                                 | 1682                                                                              | 1678                                                                              | 1747                                                                              | 1682                                                                                | 1678                                                                                | 1742                                                                                |
| Q Serve(g_s), s              | 5.9                                                                               | 0.0                                                                               | 0.0                                                                               | 2.6                                                                               | 0.0                                                                               | 0.0                                                                               | 0.3                                                                               | 6.8                                                                               | 6.8                                                                               | 2.1                                                                                 | 30.2                                                                                | 30.6                                                                                |
| Cycle Q Clear(g_c), s        | 5.9                                                                               | 0.0                                                                               | 0.0                                                                               | 2.6                                                                               | 0.0                                                                               | 0.0                                                                               | 0.3                                                                               | 6.8                                                                               | 6.8                                                                               | 2.1                                                                                 | 30.2                                                                                | 30.6                                                                                |
| Prop In Lane                 | 0.85                                                                              |                                                                                   | 0.08                                                                              | 0.37                                                                              |                                                                                   | 0.63                                                                              | 1.00                                                                              |                                                                                   | 0.06                                                                              | 1.00                                                                                |                                                                                     | 0.07                                                                                |
| Lane Grp Cap(c), veh/h       | 99                                                                                | 0                                                                                 | 0                                                                                 | 39                                                                                | 0                                                                                 | 0                                                                                 | 236                                                                               | 1218                                                                              | 1268                                                                              | 670                                                                                 | 1250                                                                                | 1297                                                                                |
| V/C Ratio(X)                 | 0.74                                                                              | 0.00                                                                              | 0.00                                                                              | 0.78                                                                              | 0.00                                                                              | 0.00                                                                              | 0.07                                                                              | 0.21                                                                              | 0.21                                                                              | 0.16                                                                                | 0.63                                                                                | 0.63                                                                                |
| Avail Cap(c_a), veh/h        | 241                                                                               | 0                                                                                 | 0                                                                                 | 166                                                                               | 0                                                                                 | 0                                                                                 | 400                                                                               | 1218                                                                              | 1268                                                                              | 739                                                                                 | 1250                                                                                | 1297                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.84                                                                                | 0.84                                                                                | 0.84                                                                                |
| Uniform Delay (d), s/veh     | 62.5                                                                              | 0.0                                                                               | 0.0                                                                               | 65.4                                                                              | 0.0                                                                               | 0.0                                                                               | 7.6                                                                               | 6.0                                                                               | 6.0                                                                               | 4.3                                                                                 | 8.3                                                                                 | 8.3                                                                                 |
| Incr Delay (d2), s/veh       | 10.5                                                                              | 0.0                                                                               | 0.0                                                                               | 27.6                                                                              | 0.0                                                                               | 0.0                                                                               | 0.1                                                                               | 0.4                                                                               | 0.4                                                                               | 0.1                                                                                 | 2.0                                                                                 | 2.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 5.0                                                                               | 0.0                                                                               | 0.0                                                                               | 2.4                                                                               | 0.0                                                                               | 0.0                                                                               | 0.2                                                                               | 4.4                                                                               | 4.5                                                                               | 1.2                                                                                 | 15.4                                                                                | 16.0                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 72.9                                                                              | 0.0                                                                               | 0.0                                                                               | 93.0                                                                              | 0.0                                                                               | 0.0                                                                               | 7.7                                                                               | 6.4                                                                               | 6.4                                                                               | 4.4                                                                                 | 10.3                                                                                | 10.3                                                                                |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 74                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 549                                                                               |                                                                                   |                                                                                     | 1708                                                                                |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 72.9                                                                              |                                                                                   |                                                                                   | 93.0                                                                              |                                                                                   |                                                                                   | 6.4                                                                               |                                                                                   |                                                                                     | 9.9                                                                                 |                                                                                     |
| Approach LOS                 |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                   | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.4                                                                               |                                                                                   |                                                                                   | 8.9                                                                               | 6.9                                                                               | 105.7                                                                             |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 5.2                                                                               |                                                                                   | 5.5                                                                               | 4.6                                                                               | 5.2                                                                               |                                                                                   | 5.5                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.5                                                                              | 69.8                                                                              |                                                                                   | 14.5                                                                              | 15.4                                                                              | 64.8                                                                              |                                                                                   | 19.5                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 14.5                                                                              | 8.8                                                                               |                                                                                   | 4.6                                                                               | 2.3                                                                               | 32.6                                                                              |                                                                                   | 7.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 3.7                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 16.0                                                                              |                                                                                   | 0.2                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   | 12.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 5: Rock Blvd &amp; Glendale Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                                | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |  |  |   |    |    |    |    |
| Traffic Volume (veh/h)                                                                             | 100                                                                               | 360                                                                               | 280                                                                               | 120                                                                               | 300                                                                               | 90                                                                                | 100                                                                               | 350                                                                                | 90                                                                                  | 220                                                                                 | 980                                                                                 | 200                                                                                 |
| Future Volume (veh/h)                                                                              | 100                                                                               | 360                                                                               | 280                                                                               | 120                                                                               | 300                                                                               | 90                                                                                | 100                                                                               | 350                                                                                | 90                                                                                  | 220                                                                                 | 980                                                                                 | 200                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                    | 0.99                                                                                | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                    |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                               | 1752                                                                                | 1752                                                                                | 1752                                                                                | 1752                                                                                |
| Adj Flow Rate, veh/h                                                                               | 106                                                                               | 383                                                                               | 226                                                                               | 128                                                                               | 319                                                                               | 22                                                                                | 106                                                                               | 372                                                                                | 56                                                                                  | 234                                                                                 | 1043                                                                                | 133                                                                                 |
| Peak Hour Factor                                                                                   | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                               | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Percent Heavy Veh, %                                                                               | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                 | 10                                                                                  | 10                                                                                  | 10                                                                                  | 10                                                                                  |
| Cap, veh/h                                                                                         | 129                                                                               | 497                                                                               | 214                                                                               | 152                                                                               | 545                                                                               | 239                                                                               | 129                                                                               | 1171                                                                               | 518                                                                                 | 297                                                                                 | 1228                                                                                | 543                                                                                 |
| Arrive On Green                                                                                    | 0.08                                                                              | 0.15                                                                              | 0.15                                                                              | 0.09                                                                              | 0.16                                                                              | 0.16                                                                              | 0.08                                                                              | 0.35                                                                               | 0.35                                                                                | 0.09                                                                                | 0.37                                                                                | 0.37                                                                                |
| Sat Flow, veh/h                                                                                    | 1668                                                                              | 3328                                                                              | 1436                                                                              | 1668                                                                              | 3328                                                                              | 1460                                                                              | 1668                                                                              | 3328                                                                               | 1472                                                                                | 3237                                                                                | 3328                                                                                | 1473                                                                                |
| Grp Volume(v), veh/h                                                                               | 106                                                                               | 383                                                                               | 226                                                                               | 128                                                                               | 319                                                                               | 22                                                                                | 106                                                                               | 372                                                                                | 56                                                                                  | 234                                                                                 | 1043                                                                                | 133                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1668                                                                              | 1664                                                                              | 1436                                                                              | 1668                                                                              | 1664                                                                              | 1460                                                                              | 1668                                                                              | 1664                                                                               | 1472                                                                                | 1618                                                                                | 1664                                                                                | 1473                                                                                |
| Q Serve(g_s), s                                                                                    | 8.5                                                                               | 14.9                                                                              | 12.8                                                                              | 10.2                                                                              | 12.0                                                                              | 1.7                                                                               | 8.5                                                                               | 11.0                                                                               | 3.5                                                                                 | 9.6                                                                                 | 38.9                                                                                | 4.3                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 8.5                                                                               | 14.9                                                                              | 12.8                                                                              | 10.2                                                                              | 12.0                                                                              | 1.7                                                                               | 8.5                                                                               | 11.0                                                                               | 3.5                                                                                 | 9.6                                                                                 | 38.9                                                                                | 4.3                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                    | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 129                                                                               | 497                                                                               | 214                                                                               | 152                                                                               | 545                                                                               | 239                                                                               | 129                                                                               | 1171                                                                               | 518                                                                                 | 297                                                                                 | 1228                                                                                | 543                                                                                 |
| V/C Ratio(X)                                                                                       | 0.82                                                                              | 0.77                                                                              | 1.05                                                                              | 0.84                                                                              | 0.59                                                                              | 0.09                                                                              | 0.82                                                                              | 0.32                                                                               | 0.11                                                                                | 0.79                                                                                | 0.85                                                                                | 0.24                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 240                                                                               | 602                                                                               | 260                                                                               | 239                                                                               | 602                                                                               | 264                                                                               | 242                                                                               | 1171                                                                               | 518                                                                                 | 1067                                                                                | 1228                                                                                | 543                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                               | 0.95                                                                                | 0.67                                                                                | 0.67                                                                                | 0.67                                                                                |
| Uniform Delay (d), s/veh                                                                           | 61.4                                                                              | 55.2                                                                              | 23.2                                                                              | 60.4                                                                              | 52.2                                                                              | 47.9                                                                              | 61.4                                                                              | 31.9                                                                               | 29.5                                                                                | 60.0                                                                                | 39.2                                                                                | 7.7                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 12.3                                                                              | 5.0                                                                               | 70.0                                                                              | 14.6                                                                              | 1.2                                                                               | 0.2                                                                               | 11.7                                                                              | 0.7                                                                                | 0.4                                                                                 | 3.2                                                                                 | 5.2                                                                                 | 0.7                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 7.3                                                                               | 10.8                                                                              | 13.6                                                                              | 8.6                                                                               | 8.8                                                                               | 1.2                                                                               | 7.2                                                                               | 8.0                                                                                | 2.3                                                                                 | 6.8                                                                                 | 22.1                                                                                | 5.3                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 73.7                                                                              | 60.2                                                                              | 93.1                                                                              | 75.0                                                                              | 53.4                                                                              | 48.1                                                                              | 73.1                                                                              | 32.6                                                                               | 29.9                                                                                | 63.2                                                                                | 44.3                                                                                | 8.4                                                                                 |
| LnGrp LOS                                                                                          | E                                                                                 | E                                                                                 | F                                                                                 | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | C                                                                                  | C                                                                                   | E                                                                                   | D                                                                                   | A                                                                                   |
| Approach Vol, veh/h                                                                                | 715                                                                               |                                                                                   |                                                                                   | 469                                                                               |                                                                                   |                                                                                   | 534                                                                               |                                                                                    |                                                                                     | 1410                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 72.6                                                                              |                                                                                   |                                                                                   | 59.1                                                                              |                                                                                   |                                                                                   | 40.4                                                                              |                                                                                    |                                                                                     | 44.1                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                    |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 17.9                                                                              | 52.9                                                                              | 18.0                                                                              | 25.7                                                                              | 15.8                                                                              | 55.0                                                                              | 16.0                                                                              | 27.7                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.5                                                                               | * 5.4                                                                             | 5.7                                                                               | 5.6                                                                               | 5.4                                                                               | 5.2                                                                               | 5.6                                                                               | 5.6                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 41.5                                                                              | * 25                                                                              | 19.3                                                                              | 24.4                                                                              | 19.6                                                                              | 49.8                                                                              | 19.4                                                                              | 24.4                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s                                                                       | 11.6                                                                              | 13.0                                                                              | 12.2                                                                              | 16.9                                                                              | 10.5                                                                              | 40.9                                                                              | 10.5                                                                              | 14.0                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.8                                                                               | 2.0                                                                               | 0.2                                                                               | 2.0                                                                               | 0.2                                                                               | 5.0                                                                               | 0.1                                                                               | 1.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 52.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 6: Rock Blvd &amp; Greg St

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                                | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                    |  |  |  |
| Traffic Volume (veh/h)                                                                             | 160                                                                               | 190                                                                               | 30                                                                                | 30                                                                                | 220                                                                               | 80                                                                                | 30                                                                                | 320                                                                               | 40                                                                                 | 210                                                                                 | 770                                                                                 | 250                                                                                 |
| Future Volume (veh/h)                                                                              | 160                                                                               | 190                                                                               | 30                                                                                | 30                                                                                | 220                                                                               | 80                                                                                | 30                                                                                | 320                                                                               | 40                                                                                 | 210                                                                                 | 770                                                                                 | 250                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                               | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                               | 1767                                                                                | 1767                                                                                | 1767                                                                                |
| Adj Flow Rate, veh/h                                                                               | 170                                                                               | 202                                                                               | 26                                                                                | 32                                                                                | 234                                                                               | 59                                                                                | 32                                                                                | 340                                                                               | 32                                                                                 | 223                                                                                 | 819                                                                                 | 149                                                                                 |
| Peak Hour Factor                                                                                   | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                               | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Percent Heavy Veh, %                                                                               | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                  | 9                                                                                   | 9                                                                                   | 9                                                                                   |
| Cap, veh/h                                                                                         | 253                                                                               | 570                                                                               | 72                                                                                | 220                                                                               | 303                                                                               | 75                                                                                | 238                                                                               | 1259                                                                              | 118                                                                                | 418                                                                                 | 1392                                                                                | 621                                                                                 |
| Arrive On Green                                                                                    | 0.10                                                                              | 0.19                                                                              | 0.19                                                                              | 0.03                                                                              | 0.11                                                                              | 0.11                                                                              | 0.03                                                                              | 0.41                                                                              | 0.41                                                                               | 0.07                                                                                | 0.83                                                                                | 0.83                                                                                |
| Sat Flow, veh/h                                                                                    | 1682                                                                              | 2995                                                                              | 381                                                                               | 1682                                                                              | 2666                                                                              | 658                                                                               | 1682                                                                              | 3102                                                                              | 290                                                                                | 1682                                                                                | 3357                                                                                | 1496                                                                                |
| Grp Volume(v), veh/h                                                                               | 170                                                                               | 112                                                                               | 116                                                                               | 32                                                                                | 145                                                                               | 148                                                                               | 32                                                                                | 183                                                                               | 189                                                                                | 223                                                                                 | 819                                                                                 | 149                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1682                                                                              | 1678                                                                              | 1697                                                                              | 1682                                                                              | 1678                                                                              | 1646                                                                              | 1682                                                                              | 1678                                                                              | 1714                                                                               | 1682                                                                                | 1678                                                                                | 1496                                                                                |
| Q Serve(g_s), s                                                                                    | 11.7                                                                              | 7.8                                                                               | 8.0                                                                               | 2.3                                                                               | 11.4                                                                              | 11.8                                                                              | 1.6                                                                               | 9.8                                                                               | 9.9                                                                                | 0.0                                                                                 | 11.0                                                                                | 2.9                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 11.7                                                                              | 7.8                                                                               | 8.0                                                                               | 2.3                                                                               | 11.4                                                                              | 11.8                                                                              | 1.6                                                                               | 9.8                                                                               | 9.9                                                                                | 0.0                                                                                 | 11.0                                                                                | 2.9                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 0.22                                                                              | 1.00                                                                              |                                                                                   | 0.40                                                                              | 1.00                                                                              |                                                                                   | 0.17                                                                               | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 253                                                                               | 319                                                                               | 323                                                                               | 220                                                                               | 191                                                                               | 187                                                                               | 238                                                                               | 681                                                                               | 696                                                                                | 418                                                                                 | 1392                                                                                | 621                                                                                 |
| V/C Ratio(X)                                                                                       | 0.67                                                                              | 0.35                                                                              | 0.36                                                                              | 0.15                                                                              | 0.76                                                                              | 0.79                                                                              | 0.13                                                                              | 0.27                                                                              | 0.27                                                                               | 0.53                                                                                | 0.59                                                                                | 0.24                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 323                                                                               | 319                                                                               | 323                                                                               | 420                                                                               | 303                                                                               | 298                                                                               | 376                                                                               | 681                                                                               | 696                                                                                | 538                                                                                 | 1392                                                                                | 621                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 0.62                                                                                | 0.62                                                                                | 0.62                                                                                |
| Uniform Delay (d), s/veh                                                                           | 45.2                                                                              | 47.4                                                                              | 47.5                                                                              | 51.0                                                                              | 58.1                                                                              | 58.3                                                                              | 27.1                                                                              | 26.7                                                                              | 26.8                                                                               | 34.9                                                                                | 7.7                                                                                 | 7.0                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 3.6                                                                               | 0.7                                                                               | 0.7                                                                               | 0.3                                                                               | 6.2                                                                               | 7.2                                                                               | 0.3                                                                               | 1.0                                                                               | 1.0                                                                                | 0.7                                                                                 | 1.1                                                                                 | 0.6                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 8.9                                                                               | 6.0                                                                               | 6.3                                                                               | 1.8                                                                               | 8.9                                                                               | 9.1                                                                               | 1.2                                                                               | 7.5                                                                               | 7.7                                                                                | 9.1                                                                                 | 4.8                                                                                 | 1.7                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 48.9                                                                              | 48.1                                                                              | 48.2                                                                              | 51.3                                                                              | 64.3                                                                              | 65.5                                                                              | 27.4                                                                              | 27.7                                                                              | 27.7                                                                               | 35.5                                                                                | 8.8                                                                                 | 7.5                                                                                 |
| LnGrp LOS                                                                                          | D                                                                                 | D                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | C                                                                                  | D                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h                                                                                | 398                                                                               |                                                                                   |                                                                                   | 325                                                                               |                                                                                   |                                                                                   | 404                                                                               |                                                                                   |                                                                                    | 1191                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 48.4                                                                              |                                                                                   |                                                                                   | 63.5                                                                              |                                                                                   |                                                                                   | 27.7                                                                              |                                                                                   |                                                                                    | 13.6                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 60.4                                                                              | 60.0                                                                              | 9.0                                                                               | 31.3                                                                              | 9.0                                                                               | 61.4                                                                              | 19.4                                                                              | 20.9                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.4                                                                               | 5.2                                                                               | 5.5                                                                               | 5.6                                                                               | 5.5                                                                               | * 5.4                                                                             | 5.5                                                                               | 5.6                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 14.6                                                                              | 54.8                                                                              | 19.5                                                                              | 24.4                                                                              | 14.5                                                                              | * 55                                                                              | 19.5                                                                              | 24.4                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s                                                                        | 12.0                                                                              | 11.9                                                                              | 4.3                                                                               | 10.0                                                                              | 3.6                                                                               | 13.0                                                                              | 13.7                                                                              | 13.8                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.5                                                                               | 2.4                                                                               | 0.0                                                                               | 1.0                                                                               | 0.0                                                                               | 7.7                                                                               | 0.2                                                                               | 1.2                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 29.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 2.2                                                                               |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations         |  |  |  |      |  |  |
| Traffic Vol, veh/h          | 10                                                                                | 130                                                                               | 880                                                                               | 20   | 130                                                                               | 460                                                                               |
| Future Vol, veh/h           | 10                                                                                | 130                                                                               | 880                                                                               | 20   | 130                                                                               | 460                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 7    | 0                                                                                 | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized              | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length              | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor            | 98                                                                                | 98                                                                                | 98                                                                                | 98   | 98                                                                                | 98                                                                                |
| Heavy Vehicles, %           | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                   | 10                                                                                | 133                                                                               | 898                                                                               | 20   | 133                                                                               | 469                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All        | 1415                                                                              | 466                                                                               | 0                                                                                 | 0    | 925                                                                               | 0                                                                                 |
| Stage 1                     | 915                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 500                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy               | 6.84                                                                              | 6.94                                                                              | -                                                                                 | -    | 4.14                                                                              | -                                                                                 |
| Critical Hdwy Stg 1         | 5.84                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2         | 5.84                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy              | 3.52                                                                              | 3.32                                                                              | -                                                                                 | -    | 2.22                                                                              | -                                                                                 |
| Pot Cap-1 Maneuver          | 128                                                                               | 543                                                                               | -                                                                                 | -    | 734                                                                               | -                                                                                 |
| Stage 1                     | 351                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 575                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver          | 104                                                                               | 539                                                                               | -                                                                                 | -    | 729                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver          | 104                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                     | 348                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 470                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v15.93 |                                                                                   | 0                                                                                 | 2.43                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                     | C                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 104 539                                                                         | 729                                                                               | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.098 0.246                                                                     | 0.182                                                                             | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 43.2 13.8                                                                       | 11                                                                                | -    |                                                                                   |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - E B                                                                             | B                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 0.3 1                                                                           | 0.7                                                                               | -    |                                                                                   |                                                                                   |

## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 5                                                                                 | 1                                                                                 | 5                                                                                 | 40                                                                                | 5                                                                                 | 20                                                                                | 5                                                                                   | 870                                                                                 | 40                                                                                  | 20                                                                                  | 560                                                                                 | 5                                                                                   |
| Future Volume (veh/h)        | 5                                                                                 | 1                                                                                 | 5                                                                                 | 40                                                                                | 5                                                                                 | 20                                                                                | 5                                                                                   | 870                                                                                 | 40                                                                                  | 20                                                                                  | 560                                                                                 | 5                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.98                                                                              | 0.98                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 5                                                                                 | 1                                                                                 | 4                                                                                 | 41                                                                                | 5                                                                                 | 15                                                                                | 5                                                                                   | 888                                                                                 | 9                                                                                   | 20                                                                                  | 571                                                                                 | 5                                                                                   |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 72                                                                                | 21                                                                                | 38                                                                                | 135                                                                               | 25                                                                                | 75                                                                                | 729                                                                                 | 2914                                                                                | 1268                                                                                | 553                                                                                 | 3003                                                                                | 26                                                                                  |
| Arrive On Green              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.01                                                                                | 0.82                                                                                | 0.82                                                                                | 0.02                                                                                | 0.83                                                                                | 0.83                                                                                |
| Sat Flow, veh/h              | 586                                                                               | 332                                                                               | 612                                                                               | 1385                                                                              | 406                                                                               | 1217                                                                              | 1781                                                                                | 3554                                                                                | 1546                                                                                | 1781                                                                                | 3609                                                                                | 32                                                                                  |
| Grp Volume(v), veh/h         | 10                                                                                | 0                                                                                 | 0                                                                                 | 41                                                                                | 0                                                                                 | 20                                                                                | 5                                                                                   | 888                                                                                 | 9                                                                                   | 20                                                                                  | 281                                                                                 | 295                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1531                                                                              | 0                                                                                 | 0                                                                                 | 1385                                                                              | 0                                                                                 | 1623                                                                              | 1781                                                                                | 1777                                                                                | 1546                                                                                | 1781                                                                                | 1777                                                                                | 1864                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 3.3                                                                               | 0.0                                                                               | 1.8                                                                               | 0.1                                                                                 | 9.0                                                                                 | 0.2                                                                                 | 0.3                                                                                 | 4.7                                                                                 | 4.7                                                                                 |
| Cycle Q Clear(g_c), s        | 0.8                                                                               | 0.0                                                                               | 0.0                                                                               | 4.1                                                                               | 0.0                                                                               | 1.8                                                                               | 0.1                                                                                 | 9.0                                                                                 | 0.2                                                                                 | 0.3                                                                                 | 4.7                                                                                 | 4.7                                                                                 |
| Prop In Lane                 | 0.50                                                                              |                                                                                   | 0.40                                                                              | 1.00                                                                              |                                                                                   | 0.75                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.02                                                                                |
| Lane Grp Cap(c), veh/h       | 130                                                                               | 0                                                                                 | 0                                                                                 | 135                                                                               | 0                                                                                 | 100                                                                               | 729                                                                                 | 2914                                                                                | 1268                                                                                | 553                                                                                 | 1478                                                                                | 1551                                                                                |
| V/C Ratio(X)                 | 0.08                                                                              | 0.00                                                                              | 0.00                                                                              | 0.30                                                                              | 0.00                                                                              | 0.20                                                                              | 0.01                                                                                | 0.30                                                                                | 0.01                                                                                | 0.04                                                                                | 0.19                                                                                | 0.19                                                                                |
| Avail Cap(c_a), veh/h        | 582                                                                               | 0                                                                                 | 0                                                                                 | 559                                                                               | 0                                                                                 | 596                                                                               | 837                                                                                 | 2914                                                                                | 1268                                                                                | 641                                                                                 | 1478                                                                                | 1551                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 66.4                                                                              | 0.0                                                                               | 0.0                                                                               | 67.9                                                                              | 0.0                                                                               | 66.9                                                                              | 2.3                                                                                 | 3.2                                                                                 | 2.4                                                                                 | 2.2                                                                                 | 2.5                                                                                 | 2.5                                                                                 |
| Incr Delay (d2), s/veh       | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 1.2                                                                               | 0.0                                                                               | 1.0                                                                               | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.3                                                                                 | 0.3                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.7                                                                               | 0.0                                                                               | 0.0                                                                               | 2.8                                                                               | 0.0                                                                               | 1.4                                                                               | 0.0                                                                                 | 5.1                                                                                 | 0.1                                                                                 | 0.1                                                                                 | 2.7                                                                                 | 2.8                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 66.7                                                                              | 0.0                                                                               | 0.0                                                                               | 69.1                                                                              | 0.0                                                                               | 67.8                                                                              | 2.3                                                                                 | 3.5                                                                                 | 2.4                                                                                 | 2.3                                                                                 | 2.8                                                                                 | 2.8                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 10                                                                                |                                                                                   |                                                                                   | 61                                                                                |                                                                                   |                                                                                   | 902                                                                                 |                                                                                     |                                                                                     | 596                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 66.7                                                                              |                                                                                   |                                                                                   | 68.7                                                                              |                                                                                   |                                                                                   | 3.5                                                                                 |                                                                                     |                                                                                     | 2.8                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.6                                                                               | 128.2                                                                             |                                                                                   | 14.2                                                                              | 5.8                                                                               | 130.0                                                                             |                                                                                     | 14.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 55.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 55.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.3                                                                               | 11.0                                                                              |                                                                                   | 2.8                                                                               | 2.1                                                                               | 6.7                                                                               |                                                                                     | 6.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 8.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 4.0                                                                               |                                                                                     | 0.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 6.1                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 3: Rock Blvd &amp; Victorian Ave

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |  |  |                                                                                   |  |  |  |
| Traffic Volume (veh/h)       | 60                                                                                | 160                                                                               | 100                                                                               | 240                                                                               | 210                                                                               | 40                                                                                | 130                                                                               | 810                                                                               | 80                                                                                | 30                                                                                  | 540                                                                                 | 40                                                                                  |
| Future Volume (veh/h)        | 60                                                                                | 160                                                                               | 100                                                                               | 240                                                                               | 210                                                                               | 40                                                                                | 130                                                                               | 810                                                                               | 80                                                                                | 30                                                                                  | 540                                                                                 | 40                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.99                                                                              |                                                                                   | 0.98                                                                              | 0.99                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                                |                                                                                     | 0.97                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                                | 1856                                                                                | 1856                                                                                |
| Adj Flow Rate, veh/h         | 61                                                                                | 163                                                                               | 51                                                                                | 245                                                                               | 214                                                                               | 29                                                                                | 133                                                                               | 827                                                                               | 58                                                                                | 31                                                                                  | 551                                                                                 | 29                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                   | 3                                                                                   | 3                                                                                   |
| Cap, veh/h                   | 227                                                                               | 237                                                                               | 196                                                                               | 329                                                                               | 348                                                                               | 47                                                                                | 412                                                                               | 1548                                                                              | 109                                                                               | 270                                                                                 | 1470                                                                                | 77                                                                                  |
| Arrive On Green              | 0.04                                                                              | 0.13                                                                              | 0.13                                                                              | 0.13                                                                              | 0.22                                                                              | 0.22                                                                              | 0.06                                                                              | 0.46                                                                              | 0.46                                                                              | 0.02                                                                                | 0.43                                                                                | 0.43                                                                                |
| Sat Flow, veh/h              | 1767                                                                              | 1856                                                                              | 1535                                                                              | 1767                                                                              | 1594                                                                              | 216                                                                               | 1767                                                                              | 3335                                                                              | 234                                                                               | 1767                                                                                | 3402                                                                                | 179                                                                                 |
| Grp Volume(v), veh/h         | 61                                                                                | 163                                                                               | 51                                                                                | 245                                                                               | 0                                                                                 | 243                                                                               | 133                                                                               | 437                                                                               | 448                                                                               | 31                                                                                  | 285                                                                                 | 295                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1767                                                                              | 1856                                                                              | 1535                                                                              | 1767                                                                              | 0                                                                                 | 1809                                                                              | 1767                                                                              | 1763                                                                              | 1806                                                                              | 1767                                                                                | 1763                                                                                | 1818                                                                                |
| Q Serve(g_s), s              | 4.5                                                                               | 12.6                                                                              | 4.5                                                                               | 17.6                                                                              | 0.0                                                                               | 18.2                                                                              | 6.1                                                                               | 26.5                                                                              | 26.5                                                                              | 1.5                                                                                 | 16.4                                                                                | 16.5                                                                                |
| Cycle Q Clear(g_c), s        | 4.5                                                                               | 12.6                                                                              | 4.5                                                                               | 17.6                                                                              | 0.0                                                                               | 18.2                                                                              | 6.1                                                                               | 26.5                                                                              | 26.5                                                                              | 1.5                                                                                 | 16.4                                                                                | 16.5                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.12                                                                              | 1.00                                                                              |                                                                                   | 0.13                                                                              | 1.00                                                                                |                                                                                     | 0.10                                                                                |
| Lane Grp Cap(c), veh/h       | 227                                                                               | 237                                                                               | 196                                                                               | 329                                                                               | 0                                                                                 | 395                                                                               | 412                                                                               | 818                                                                               | 838                                                                               | 270                                                                                 | 762                                                                                 | 785                                                                                 |
| V/C Ratio(X)                 | 0.27                                                                              | 0.69                                                                              | 0.26                                                                              | 0.74                                                                              | 0.00                                                                              | 0.62                                                                              | 0.32                                                                              | 0.53                                                                              | 0.53                                                                              | 0.11                                                                                | 0.37                                                                                | 0.38                                                                                |
| Avail Cap(c_a), veh/h        | 421                                                                               | 372                                                                               | 308                                                                               | 339                                                                               | 0                                                                                 | 395                                                                               | 487                                                                               | 818                                                                               | 838                                                                               | 461                                                                                 | 762                                                                                 | 785                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.61                                                                              | 0.61                                                                              | 0.61                                                                              | 0.99                                                                                | 0.99                                                                                | 0.99                                                                                |
| Uniform Delay (d), s/veh     | 53.9                                                                              | 62.6                                                                              | 59.1                                                                              | 47.1                                                                              | 0.0                                                                               | 52.9                                                                              | 21.8                                                                              | 28.6                                                                              | 28.6                                                                              | 24.2                                                                                | 28.9                                                                                | 28.9                                                                                |
| Incr Delay (d2), s/veh       | 0.6                                                                               | 3.6                                                                               | 0.7                                                                               | 8.4                                                                               | 0.0                                                                               | 2.8                                                                               | 0.3                                                                               | 1.5                                                                               | 1.5                                                                               | 0.2                                                                                 | 1.4                                                                                 | 1.4                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.7                                                                               | 10.3                                                                              | 3.2                                                                               | 13.4                                                                              | 0.0                                                                               | 13.5                                                                              | 4.7                                                                               | 16.0                                                                              | 16.3                                                                              | 1.1                                                                                 | 11.8                                                                                | 12.1                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 54.5                                                                              | 66.1                                                                              | 59.8                                                                              | 55.4                                                                              | 0.0                                                                               | 55.8                                                                              | 22.1                                                                              | 30.2                                                                              | 30.1                                                                              | 24.4                                                                                | 30.3                                                                                | 30.2                                                                                |
| LnGrp LOS                    | D                                                                                 | E                                                                                 | E                                                                                 | E                                                                                 |                                                                                   | E                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 275                                                                               |                                                                                   |                                                                                   | 488                                                                               |                                                                                   |                                                                                   | 1018                                                                              |                                                                                   |                                                                                   | 611                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.4                                                                              |                                                                                   |                                                                                   | 55.6                                                                              |                                                                                   |                                                                                   | 29.1                                                                              |                                                                                   |                                                                                   | 30.0                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.4                                                                               | 74.8                                                                              | 24.2                                                                              | 24.0                                                                              | 13.6                                                                              | 70.0                                                                              | 10.5                                                                              | 37.6                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.1                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.9                                                                              | 59.8                                                                              | 20.5                                                                              | 30.1                                                                              | 14.7                                                                              | 64.8                                                                              | 22.5                                                                              | 28.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s  | 13.5                                                                              | 28.5                                                                              | 19.6                                                                              | 14.6                                                                              | 8.1                                                                               | 18.5                                                                              | 6.5                                                                               | 20.2                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 6.6                                                                               | 0.1                                                                               | 0.9                                                                               | 0.2                                                                               | 4.0                                                                               | 0.1                                                                               | 0.8                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 38.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 4: Rock Blvd &amp; Hymer Ave

|                              |  |      |      |       |      |      |      |      |      |      |      |      |
|------------------------------|------------------------------------------------------------------------------------|------|------|-------|------|------|------|------|------|------|------|------|
| Movement                     | EBL                                                                                | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations          |                                                                                    | ↕    |      |       | ↕    |      | ↙    | ↕    |      | ↙    | ↕    |      |
| Traffic Volume (veh/h)       | 200                                                                                | 5    | 15   | 30    | 5    | 220  | 5    | 1360 | 20   | 70   | 600  | 40   |
| Future Volume (veh/h)        | 200                                                                                | 5    | 15   | 30    | 5    | 220  | 5    | 1360 | 20   | 70   | 600  | 40   |
| Initial Q (Qb), veh          | 0                                                                                  | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lane Width Adj.              | 1.00                                                                               | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                               |      | 0.99 | 1.00  |      | 0.99 | 1.00 |      | 0.97 | 1.00 |      | 0.99 |
| Parking Bus, Adj             | 1.00                                                                               | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No                                                                                 |      |      | No    |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       | 1826                                                                               | 1826 | 1826 | 1826  | 1826 | 1826 | 1826 | 1826 | 1826 | 1826 | 1826 | 1826 |
| Adj Flow Rate, veh/h         | 204                                                                                | 5    | 12   | 31    | 5    | 162  | 5    | 1388 | 16   | 71   | 612  | 31   |
| Peak Hour Factor             | 0.98                                                                               | 0.98 | 0.98 | 0.98  | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, %         | 5                                                                                  | 5    | 5    | 5     | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    |
| Cap, veh/h                   | 230                                                                                | 6    | 14   | 24    | 4    | 124  | 415  | 1634 | 19   | 149  | 1651 | 84   |
| Arrive On Green              | 0.14                                                                               | 0.14 | 0.14 | 0.10  | 0.10 | 0.10 | 0.01 | 0.47 | 0.47 | 0.07 | 0.98 | 0.98 |
| Sat Flow, veh/h              | 1595                                                                               | 39   | 94   | 245   | 40   | 1280 | 1739 | 3511 | 40   | 1739 | 3359 | 170  |
| Grp Volume(v), veh/h         | 221                                                                                | 0    | 0    | 198   | 0    | 0    | 5    | 685  | 719  | 71   | 316  | 327  |
| Grp Sat Flow(s), veh/h/ln    | 1728                                                                               | 0    | 0    | 1564  | 0    | 0    | 1739 | 1735 | 1817 | 1739 | 1735 | 1794 |
| Q Serve(g_s), s              | 18.8                                                                               | 0.0  | 0.0  | 14.5  | 0.0  | 0.0  | 0.2  | 52.4 | 52.5 | 3.2  | 0.7  | 0.7  |
| Cycle Q Clear(g_c), s        | 18.8                                                                               | 0.0  | 0.0  | 14.5  | 0.0  | 0.0  | 0.2  | 52.4 | 52.5 | 3.2  | 0.7  | 0.7  |
| Prop In Lane                 | 0.92                                                                               |      | 0.05 | 0.16  |      | 0.82 | 1.00 |      | 0.02 | 1.00 |      | 0.09 |
| Lane Grp Cap(c), veh/h       | 249                                                                                | 0    | 0    | 151   | 0    | 0    | 415  | 807  | 846  | 149  | 853  | 882  |
| V/C Ratio(X)                 | 0.89                                                                               | 0.00 | 0.00 | 1.31  | 0.00 | 0.00 | 0.01 | 0.85 | 0.85 | 0.48 | 0.37 | 0.37 |
| Avail Cap(c_a), veh/h        | 340                                                                                | 0    | 0    | 151   | 0    | 0    | 583  | 807  | 846  | 271  | 853  | 882  |
| HCM Platoon Ratio            | 1.00                                                                               | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I)           | 1.00                                                                               | 0.00 | 0.00 | 1.00  | 0.00 | 0.00 | 0.68 | 0.68 | 0.68 | 0.90 | 0.90 | 0.90 |
| Uniform Delay (d), s/veh     | 63.0                                                                               | 0.0  | 0.0  | 67.8  | 0.0  | 0.0  | 21.0 | 35.4 | 35.5 | 29.7 | 0.6  | 0.6  |
| Incr Delay (d2), s/veh       | 18.9                                                                               | 0.0  | 0.0  | 178.5 | 0.0  | 0.0  | 0.0  | 7.7  | 7.4  | 2.1  | 1.1  | 1.1  |
| Initial Q Delay(d3), s/veh   | 0.0                                                                                | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 14.7                                                                               | 0.0  | 0.0  | 21.2  | 0.0  | 0.0  | 0.2  | 30.2 | 31.5 | 2.4  | 0.8  | 0.8  |
| Unsig. Movement Delay, s/veh |                                                                                    |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh        | 81.9                                                                               | 0.0  | 0.0  | 246.3 | 0.0  | 0.0  | 21.0 | 43.1 | 42.9 | 31.8 | 1.8  | 1.7  |
| LnGrp LOS                    | F                                                                                  |      |      | F     |      |      | C    | D    | D    | C    | A    | A    |
| Approach Vol, veh/h          | 221                                                                                |      |      | 198   |      |      | 1409 |      |      | 714  |      |      |
| Approach Delay, s/veh        | 81.9                                                                               |      |      | 246.3 |      |      | 42.9 |      |      | 4.7  |      |      |
| Approach LOS                 | F                                                                                  |      |      | F     |      |      | D    |      |      | A    |      |      |
| Timer - Assigned Phs         | 1                                                                                  | 2    |      | 4     | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 9.5                                                                                | 75.0 |      | 20.0  | 5.5  | 78.9 |      | 27.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.5                                                                                | 5.2  |      | 5.5   | 4.6  | 5.2  |      | 5.5  |      |      |      |      |
| Max Green Setting (Gmax), s  | 15.5                                                                               | 69.8 |      | 14.5  | 15.4 | 69.8 |      | 29.5 |      |      |      |      |
| Max Q Clear Time (g_c+I), s  | 15.2                                                                               | 54.5 |      | 16.5  | 2.2  | 2.7  |      | 20.8 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.1                                                                                | 8.7  |      | 0.0   | 0.0  | 4.6  |      | 0.8  |      |      |      |      |
| <b>Intersection Summary</b>  |                                                                                    |      |      |       |      |      |      |      |      |      |      |      |
| HCM 7th Control Delay, s/veh | 51.4                                                                               |      |      |       |      |      |      |      |      |      |      |      |
| HCM 7th LOS                  | D                                                                                  |      |      |       |      |      |      |      |      |      |      |      |

## HCM 7th Signalized Intersection Summary

## 5: Rock Blvd &amp; Glendale Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 180                                                                               | 350                                                                               | 240                                                                               | 90                                                                                | 600                                                                               | 270                                                                               | 140                                                                               | 940                                                                               | 60                                                                                | 80                                                                                  | 390                                                                                 | 150                                                                                 |
| Future Volume (veh/h)                                                                              | 180                                                                               | 350                                                                               | 240                                                                               | 90                                                                                | 600                                                                               | 270                                                                               | 140                                                                               | 940                                                                               | 60                                                                                | 80                                                                                  | 390                                                                                 | 150                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 194                                                                               | 376                                                                               | 193                                                                               | 97                                                                                | 645                                                                               | 78                                                                                | 151                                                                               | 1011                                                                              | 37                                                                                | 86                                                                                  | 419                                                                                 | 101                                                                                 |
| Peak Hour Factor                                                                                   | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 217                                                                               | 917                                                                               | 403                                                                               | 117                                                                               | 720                                                                               | 311                                                                               | 168                                                                               | 1453                                                                              | 635                                                                               | 129                                                                                 | 1257                                                                                | 549                                                                                 |
| Arrive On Green                                                                                    | 0.13                                                                              | 0.27                                                                              | 0.27                                                                              | 0.07                                                                              | 0.21                                                                              | 0.21                                                                              | 0.03                                                                              | 0.14                                                                              | 0.14                                                                              | 0.04                                                                                | 0.37                                                                                | 0.37                                                                                |
| Sat Flow, veh/h                                                                                    | 1725                                                                              | 3441                                                                              | 1514                                                                              | 1725                                                                              | 3441                                                                              | 1486                                                                              | 1725                                                                              | 3441                                                                              | 1503                                                                              | 3346                                                                                | 3441                                                                                | 1502                                                                                |
| Grp Volume(v), veh/h                                                                               | 194                                                                               | 376                                                                               | 193                                                                               | 97                                                                                | 645                                                                               | 78                                                                                | 151                                                                               | 1011                                                                              | 37                                                                                | 86                                                                                  | 419                                                                                 | 101                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1725                                                                              | 1721                                                                              | 1514                                                                              | 1725                                                                              | 1721                                                                              | 1486                                                                              | 1725                                                                              | 1721                                                                              | 1503                                                                              | 1673                                                                                | 1721                                                                                | 1502                                                                                |
| Q Serve(g_s), s                                                                                    | 16.6                                                                              | 13.5                                                                              | 11.1                                                                              | 8.3                                                                               | 27.4                                                                              | 5.2                                                                               | 13.1                                                                              | 42.0                                                                              | 3.2                                                                               | 3.8                                                                                 | 13.2                                                                                | 6.9                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 16.6                                                                              | 13.5                                                                              | 11.1                                                                              | 8.3                                                                               | 27.4                                                                              | 5.2                                                                               | 13.1                                                                              | 42.0                                                                              | 3.2                                                                               | 3.8                                                                                 | 13.2                                                                                | 6.9                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 217                                                                               | 917                                                                               | 403                                                                               | 117                                                                               | 720                                                                               | 311                                                                               | 168                                                                               | 1453                                                                              | 635                                                                               | 129                                                                                 | 1257                                                                                | 549                                                                                 |
| V/C Ratio(X)                                                                                       | 0.89                                                                              | 0.41                                                                              | 0.48                                                                              | 0.83                                                                              | 0.90                                                                              | 0.25                                                                              | 0.90                                                                              | 0.70                                                                              | 0.06                                                                              | 0.67                                                                                | 0.33                                                                                | 0.18                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 281                                                                               | 1019                                                                              | 448                                                                               | 164                                                                               | 789                                                                               | 341                                                                               | 168                                                                               | 1453                                                                              | 635                                                                               | 323                                                                                 | 1257                                                                                | 549                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.33                                                                              | 0.33                                                                              | 0.33                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.62                                                                              | 0.62                                                                              | 0.62                                                                              | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                |
| Uniform Delay (d), s/veh                                                                           | 64.6                                                                              | 45.3                                                                              | 22.0                                                                              | 69.0                                                                              | 57.7                                                                              | 30.6                                                                              | 71.9                                                                              | 55.4                                                                              | 38.7                                                                              | 71.2                                                                                | 34.4                                                                                | 32.4                                                                                |
| Incr Delay (d2), s/veh                                                                             | 24.0                                                                              | 0.3                                                                               | 0.9                                                                               | 20.6                                                                              | 12.1                                                                              | 0.4                                                                               | 30.1                                                                              | 1.7                                                                               | 0.1                                                                               | 5.6                                                                                 | 0.7                                                                                 | 0.7                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 18.6                                                                              | 9.9                                                                               | 7.4                                                                               | 7.8                                                                               | 19.1                                                                              | 4.5                                                                               | 11.1                                                                              | 25.7                                                                              | 2.2                                                                               | 3.1                                                                                 | 9.6                                                                                 | 4.8                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 88.6                                                                              | 45.6                                                                              | 22.9                                                                              | 89.6                                                                              | 69.8                                                                              | 31.0                                                                              | 101.9                                                                             | 57.1                                                                              | 38.8                                                                              | 76.8                                                                                | 35.1                                                                                | 33.1                                                                                |
| LnGrp LOS                                                                                          | F                                                                                 | D                                                                                 | C                                                                                 | F                                                                                 | E                                                                                 | C                                                                                 | F                                                                                 | E                                                                                 | D                                                                                 | E                                                                                   | D                                                                                   | C                                                                                   |
| Approach Vol, veh/h                                                                                | 763                                                                               |                                                                                   |                                                                                   | 820                                                                               |                                                                                   |                                                                                   | 1199                                                                              |                                                                                   |                                                                                   | 606                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 50.8                                                                              |                                                                                   |                                                                                   | 68.5                                                                              |                                                                                   |                                                                                   | 62.2                                                                              |                                                                                   |                                                                                   | 40.7                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 11.3                                                                              | 68.7                                                                              | 15.9                                                                              | 45.6                                                                              | 20.0                                                                              | 60.0                                                                              | 24.5                                                                              | 37.0                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.5                                                                               | * 5.4                                                                             | 5.7                                                                               | 5.6                                                                               | 5.4                                                                               | 5.2                                                                               | 5.6                                                                               | 5.6                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 11.5                                                                              | * 55                                                                              | 14.3                                                                              | 44.4                                                                              | 14.6                                                                              | 54.8                                                                              | 24.4                                                                              | 34.4                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s                                                                        | 15.8                                                                              | 44.0                                                                              | 10.3                                                                              | 15.5                                                                              | 15.1                                                                              | 15.2                                                                              | 18.6                                                                              | 29.4                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.1                                                                               | 5.3                                                                               | 0.1                                                                               | 3.3                                                                               | 0.0                                                                               | 3.5                                                                               | 0.3                                                                               | 2.0                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 57.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 6: Rock Blvd &amp; Greg St

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                   |  |  |  |
| Traffic Volume (veh/h)                                                                             | 210                                                                               | 220                                                                               | 20                                                                                | 50                                                                                | 450                                                                               | 200                                                                               | 50                                                                                | 700                                                                               | 40                                                                                | 110                                                                                 | 370                                                                                 | 190                                                                                 |
| Future Volume (veh/h)                                                                              | 210                                                                               | 220                                                                               | 20                                                                                | 50                                                                                | 450                                                                               | 200                                                                               | 50                                                                                | 700                                                                               | 40                                                                                | 110                                                                                 | 370                                                                                 | 190                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                                | 1856                                                                                | 1856                                                                                |
| Adj Flow Rate, veh/h                                                                               | 231                                                                               | 242                                                                               | 17                                                                                | 55                                                                                | 495                                                                               | 155                                                                               | 55                                                                                | 769                                                                               | 32                                                                                | 121                                                                                 | 407                                                                                 | 111                                                                                 |
| Peak Hour Factor                                                                                   | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Percent Heavy Veh, %                                                                               | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                   | 3                                                                                   | 3                                                                                   |
| Cap, veh/h                                                                                         | 280                                                                               | 1004                                                                              | 70                                                                                | 352                                                                               | 579                                                                               | 180                                                                               | 246                                                                               | 800                                                                               | 33                                                                                | 559                                                                                 | 1705                                                                                | 758                                                                                 |
| Arrive On Green                                                                                    | 0.11                                                                              | 0.30                                                                              | 0.30                                                                              | 0.03                                                                              | 0.22                                                                              | 0.22                                                                              | 0.04                                                                              | 0.23                                                                              | 0.23                                                                              | 0.58                                                                                | 0.97                                                                                | 0.97                                                                                |
| Sat Flow, veh/h                                                                                    | 1767                                                                              | 3343                                                                              | 233                                                                               | 1767                                                                              | 2637                                                                              | 821                                                                               | 1767                                                                              | 3448                                                                              | 143                                                                               | 1767                                                                                | 3526                                                                                | 1567                                                                                |
| Grp Volume(v), veh/h                                                                               | 231                                                                               | 127                                                                               | 132                                                                               | 55                                                                                | 330                                                                               | 320                                                                               | 55                                                                                | 393                                                                               | 408                                                                               | 121                                                                                 | 407                                                                                 | 111                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1767                                                                              | 1763                                                                              | 1814                                                                              | 1767                                                                              | 1763                                                                              | 1695                                                                              | 1767                                                                              | 1763                                                                              | 1828                                                                              | 1767                                                                                | 1763                                                                                | 1567                                                                                |
| Q Serve(g_s), s                                                                                    | 14.7                                                                              | 8.1                                                                               | 8.2                                                                               | 3.6                                                                               | 26.9                                                                              | 27.3                                                                              | 3.8                                                                               | 33.1                                                                              | 33.1                                                                              | 0.3                                                                                 | 0.7                                                                                 | 0.4                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 14.7                                                                              | 8.1                                                                               | 8.2                                                                               | 3.6                                                                               | 26.9                                                                              | 27.3                                                                              | 3.8                                                                               | 33.1                                                                              | 33.1                                                                              | 0.3                                                                                 | 0.7                                                                                 | 0.4                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 0.13                                                                              | 1.00                                                                              |                                                                                   | 0.48                                                                              | 1.00                                                                              |                                                                                   | 0.08                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 280                                                                               | 529                                                                               | 545                                                                               | 352                                                                               | 387                                                                               | 372                                                                               | 246                                                                               | 409                                                                               | 424                                                                               | 559                                                                                 | 1705                                                                                | 758                                                                                 |
| V/C Ratio(X)                                                                                       | 0.82                                                                              | 0.24                                                                              | 0.24                                                                              | 0.16                                                                              | 0.85                                                                              | 0.86                                                                              | 0.22                                                                              | 0.96                                                                              | 0.96                                                                              | 0.22                                                                                | 0.24                                                                                | 0.15                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 425                                                                               | 581                                                                               | 597                                                                               | 581                                                                               | 522                                                                               | 502                                                                               | 413                                                                               | 409                                                                               | 424                                                                               | 559                                                                                 | 1705                                                                                | 758                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Uniform Delay (d), s/veh                                                                           | 40.4                                                                              | 39.6                                                                              | 39.6                                                                              | 43.1                                                                              | 56.2                                                                              | 56.3                                                                              | 48.5                                                                              | 56.9                                                                              | 56.9                                                                              | 22.5                                                                                | 1.3                                                                                 | 1.3                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 7.8                                                                               | 0.2                                                                               | 0.2                                                                               | 0.2                                                                               | 9.9                                                                               | 11.0                                                                              | 0.5                                                                               | 35.8                                                                              | 35.1                                                                              | 0.2                                                                                 | 0.3                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 1.4                                                                               | 6.5                                                                               | 6.8                                                                               | 2.9                                                                               | 19.0                                                                              | 18.7                                                                              | 3.1                                                                               | 25.9                                                                              | 26.6                                                                              | 3.5                                                                                 | 0.6                                                                                 | 0.4                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 48.2                                                                              | 39.8                                                                              | 39.8                                                                              | 43.3                                                                              | 66.1                                                                              | 67.4                                                                              | 49.0                                                                              | 92.7                                                                              | 92.0                                                                              | 22.7                                                                                | 1.6                                                                                 | 1.6                                                                                 |
| LnGrp LOS                                                                                          | D                                                                                 | D                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | E                                                                                 | D                                                                                 | F                                                                                 | F                                                                                 | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h                                                                                | 490                                                                               |                                                                                   |                                                                                   | 705                                                                               |                                                                                   |                                                                                   | 856                                                                               |                                                                                   |                                                                                   | 639                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 43.8                                                                              |                                                                                   |                                                                                   | 64.9                                                                              |                                                                                   |                                                                                   | 89.6                                                                              |                                                                                   |                                                                                   | 5.6                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 48.7                                                                              | 40.0                                                                              | 10.6                                                                              | 50.6                                                                              | 10.8                                                                              | 78.0                                                                              | 22.7                                                                              | 38.5                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.4                                                                               | 5.2                                                                               | 5.5                                                                               | 5.6                                                                               | 5.5                                                                               | * 5.4                                                                             | 5.5                                                                               | 5.6                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 19.6                                                                              | 34.8                                                                              | 24.5                                                                              | 49.4                                                                              | 19.5                                                                              | * 35                                                                              | 29.5                                                                              | 44.4                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I2), s                                                                       | 12.3                                                                              | 35.1                                                                              | 5.6                                                                               | 10.2                                                                              | 5.8                                                                               | 2.7                                                                               | 16.7                                                                              | 29.3                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.3                                                                               | 0.0                                                                               | 0.1                                                                               | 1.6                                                                               | 0.1                                                                               | 3.3                                                                               | 0.5                                                                               | 3.6                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 54.8                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 5: Rock Blvd &amp; Glendale Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 88                                                                                | 263                                                                               | 135                                                                               | 102                                                                               | 208                                                                               | 140                                                                               | 44                                                                                  | 359                                                                                 | 76                                                                                  | 199                                                                                 | 846                                                                                 | 150                                                                                 |
| Future Volume (veh/h)                                                                              | 88                                                                                | 263                                                                               | 135                                                                               | 102                                                                               | 208                                                                               | 140                                                                               | 44                                                                                  | 359                                                                                 | 76                                                                                  | 199                                                                                 | 846                                                                                 | 150                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                                |                                                                                     | 0.99                                                                                | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                                | 1752                                                                                | 1752                                                                                | 1752                                                                                | 1752                                                                                | 1752                                                                                |
| Adj Flow Rate, veh/h                                                                               | 94                                                                                | 280                                                                               | 72                                                                                | 109                                                                               | 221                                                                               | 75                                                                                | 47                                                                                  | 382                                                                                 | 41                                                                                  | 212                                                                                 | 900                                                                                 | 80                                                                                  |
| Peak Hour Factor                                                                                   | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Percent Heavy Veh, %                                                                               | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                  | 10                                                                                  | 10                                                                                  | 10                                                                                  | 10                                                                                  | 10                                                                                  |
| Cap, veh/h                                                                                         | 116                                                                               | 417                                                                               | 179                                                                               | 132                                                                               | 451                                                                               | 197                                                                               | 60                                                                                  | 1058                                                                                | 468                                                                                 | 274                                                                                 | 1140                                                                                | 101                                                                                 |
| Arrive On Green                                                                                    | 0.07                                                                              | 0.13                                                                              | 0.13                                                                              | 0.08                                                                              | 0.14                                                                              | 0.14                                                                              | 0.04                                                                                | 0.32                                                                                | 0.32                                                                                | 0.08                                                                                | 0.37                                                                                | 0.37                                                                                |
| Sat Flow, veh/h                                                                                    | 1668                                                                              | 3328                                                                              | 1430                                                                              | 1668                                                                              | 3328                                                                              | 1455                                                                              | 1668                                                                                | 3328                                                                                | 1471                                                                                | 3237                                                                                | 3089                                                                                | 275                                                                                 |
| Grp Volume(v), veh/h                                                                               | 94                                                                                | 280                                                                               | 72                                                                                | 109                                                                               | 221                                                                               | 75                                                                                | 47                                                                                  | 382                                                                                 | 41                                                                                  | 212                                                                                 | 485                                                                                 | 495                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1668                                                                              | 1664                                                                              | 1430                                                                              | 1668                                                                              | 1664                                                                              | 1455                                                                              | 1668                                                                                | 1664                                                                                | 1471                                                                                | 1618                                                                                | 1664                                                                                | 1700                                                                                |
| Q Serve(g_s), s                                                                                    | 7.5                                                                               | 10.8                                                                              | 3.8                                                                               | 8.7                                                                               | 8.3                                                                               | 6.3                                                                               | 3.8                                                                                 | 11.9                                                                                | 2.6                                                                                 | 8.7                                                                                 | 35.0                                                                                | 35.0                                                                                |
| Cycle Q Clear(g_c), s                                                                              | 7.5                                                                               | 10.8                                                                              | 3.8                                                                               | 8.7                                                                               | 8.3                                                                               | 6.3                                                                               | 3.8                                                                                 | 11.9                                                                                | 2.6                                                                                 | 8.7                                                                                 | 35.0                                                                                | 35.0                                                                                |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.16                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 116                                                                               | 417                                                                               | 179                                                                               | 132                                                                               | 451                                                                               | 197                                                                               | 60                                                                                  | 1058                                                                                | 468                                                                                 | 274                                                                                 | 614                                                                                 | 627                                                                                 |
| V/C Ratio(X)                                                                                       | 0.81                                                                              | 0.67                                                                              | 0.40                                                                              | 0.83                                                                              | 0.49                                                                              | 0.38                                                                              | 0.79                                                                                | 0.36                                                                                | 0.09                                                                                | 0.77                                                                                | 0.79                                                                                | 0.79                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 240                                                                               | 602                                                                               | 259                                                                               | 239                                                                               | 602                                                                               | 263                                                                               | 242                                                                                 | 1058                                                                                | 468                                                                                 | 1067                                                                                | 614                                                                                 | 627                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                | 0.80                                                                                | 0.80                                                                                | 0.80                                                                                |
| Uniform Delay (d), s/veh                                                                           | 62.0                                                                              | 56.4                                                                              | 19.9                                                                              | 61.3                                                                              | 54.0                                                                              | 53.2                                                                              | 64.6                                                                                | 35.5                                                                                | 32.3                                                                                | 60.5                                                                                | 37.9                                                                                | 37.9                                                                                |
| Incr Delay (d2), s/veh                                                                             | 12.7                                                                              | 1.9                                                                               | 1.5                                                                               | 12.2                                                                              | 0.8                                                                               | 1.2                                                                               | 19.2                                                                                | 0.9                                                                                 | 0.4                                                                                 | 3.8                                                                                 | 8.1                                                                                 | 8.0                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 6.5                                                                               | 8.2                                                                               | 4.1                                                                               | 7.4                                                                               | 6.4                                                                               | 4.3                                                                               | 3.5                                                                                 | 8.6                                                                                 | 1.8                                                                                 | 6.5                                                                                 | 21.4                                                                                | 21.7                                                                                |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 74.7                                                                              | 58.3                                                                              | 21.3                                                                              | 73.5                                                                              | 54.8                                                                              | 54.4                                                                              | 83.8                                                                                | 36.4                                                                                | 32.7                                                                                | 64.3                                                                                | 46.1                                                                                | 45.9                                                                                |
| LnGrp LOS                                                                                          | E                                                                                 | E                                                                                 | C                                                                                 | E                                                                                 | D                                                                                 | D                                                                                 | F                                                                                   | D                                                                                   | C                                                                                   | E                                                                                   | D                                                                                   | D                                                                                   |
| Approach Vol, veh/h                                                                                | 446                                                                               |                                                                                   |                                                                                   | 405                                                                               |                                                                                   |                                                                                   | 470                                                                                 |                                                                                     |                                                                                     | 1192                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 55.8                                                                              |                                                                                   |                                                                                   | 59.8                                                                              |                                                                                   |                                                                                   | 40.8                                                                                |                                                                                     |                                                                                     | 49.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | D                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 16.9                                                                              | 48.3                                                                              | 16.4                                                                              | 22.5                                                                              | 10.2                                                                              | 55.0                                                                              | 15.0                                                                                | 23.9                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.5                                                                               | * 5.4                                                                             | 5.7                                                                               | 5.6                                                                               | 5.4                                                                               | 5.2                                                                               | 5.6                                                                                 | 5.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 44.5                                                                              | * 25                                                                              | 19.3                                                                              | 24.4                                                                              | 19.6                                                                              | 49.8                                                                              | 19.4                                                                                | 24.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s                                                                       | 10.7                                                                              | 13.9                                                                              | 10.7                                                                              | 12.8                                                                              | 5.8                                                                               | 37.0                                                                              | 9.5                                                                                 | 10.3                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.8                                                                               | 1.9                                                                               | 0.2                                                                               | 1.5                                                                               | 0.1                                                                               | 5.3                                                                               | 0.1                                                                                 | 1.4                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 50.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 5: Rock Blvd &amp; Glendale Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 189                                                                               | 262                                                                               | 115                                                                               | 77                                                                                | 407                                                                               | 392                                                                               | 58                                                                                 | 941                                                                                 | 52                                                                                  | 120                                                                                 | 394                                                                                 | 111                                                                                 |
| Future Volume (veh/h)                                                                              | 189                                                                               | 262                                                                               | 115                                                                               | 77                                                                                | 407                                                                               | 392                                                                               | 58                                                                                 | 941                                                                                 | 52                                                                                  | 120                                                                                 | 394                                                                                 | 111                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                               |                                                                                     | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                               | 1811                                                                                | 1811                                                                                | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 203                                                                               | 282                                                                               | 59                                                                                | 83                                                                                | 438                                                                               | 210                                                                               | 62                                                                                 | 1012                                                                                | 28                                                                                  | 129                                                                                 | 424                                                                                 | 59                                                                                  |
| Peak Hour Factor                                                                                   | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                               | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                  | 6                                                                                   | 6                                                                                   | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 226                                                                               | 782                                                                               | 343                                                                               | 103                                                                               | 540                                                                               | 231                                                                               | 94                                                                                 | 1257                                                                                | 548                                                                                 | 175                                                                                 | 1106                                                                                | 153                                                                                 |
| Arrive On Green                                                                                    | 0.13                                                                              | 0.23                                                                              | 0.23                                                                              | 0.06                                                                              | 0.16                                                                              | 0.16                                                                              | 0.02                                                                               | 0.12                                                                                | 0.12                                                                                | 0.10                                                                                | 0.73                                                                                | 0.73                                                                                |
| Sat Flow, veh/h                                                                                    | 1725                                                                              | 3441                                                                              | 1511                                                                              | 1725                                                                              | 3441                                                                              | 1476                                                                              | 1725                                                                               | 3441                                                                                | 1501                                                                                | 3346                                                                                | 3027                                                                                | 418                                                                                 |
| Grp Volume(v), veh/h                                                                               | 203                                                                               | 282                                                                               | 59                                                                                | 83                                                                                | 438                                                                               | 210                                                                               | 62                                                                                 | 1012                                                                                | 28                                                                                  | 129                                                                                 | 240                                                                                 | 243                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1725                                                                              | 1721                                                                              | 1511                                                                              | 1725                                                                              | 1721                                                                              | 1476                                                                              | 1725                                                                               | 1721                                                                                | 1501                                                                                | 1673                                                                                | 1721                                                                                | 1725                                                                                |
| Q Serve(g_s), s                                                                                    | 17.4                                                                              | 10.3                                                                              | 3.0                                                                               | 7.1                                                                               | 18.4                                                                              | 14.2                                                                              | 5.4                                                                                | 43.0                                                                                | 2.5                                                                                 | 5.6                                                                                 | 7.8                                                                                 | 7.9                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 17.4                                                                              | 10.3                                                                              | 3.0                                                                               | 7.1                                                                               | 18.4                                                                              | 14.2                                                                              | 5.4                                                                                | 43.0                                                                                | 2.5                                                                                 | 5.6                                                                                 | 7.8                                                                                 | 7.9                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.24                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 226                                                                               | 782                                                                               | 343                                                                               | 103                                                                               | 540                                                                               | 231                                                                               | 94                                                                                 | 1257                                                                                | 548                                                                                 | 175                                                                                 | 629                                                                                 | 630                                                                                 |
| V/C Ratio(X)                                                                                       | 0.90                                                                              | 0.36                                                                              | 0.17                                                                              | 0.81                                                                              | 0.81                                                                              | 0.91                                                                              | 0.66                                                                               | 0.81                                                                                | 0.05                                                                                | 0.74                                                                                | 0.38                                                                                | 0.39                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 281                                                                               | 789                                                                               | 346                                                                               | 222                                                                               | 674                                                                               | 289                                                                               | 225                                                                                | 1257                                                                                | 548                                                                                 | 435                                                                                 | 629                                                                                 | 630                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.33                                                                               | 0.33                                                                                | 0.33                                                                                | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.70                                                                               | 0.70                                                                                | 0.70                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh                                                                           | 64.2                                                                              | 48.8                                                                              | 19.3                                                                              | 69.7                                                                              | 61.1                                                                              | 28.4                                                                              | 72.3                                                                               | 60.8                                                                                | 43.0                                                                                | 66.1                                                                                | 13.9                                                                                | 13.9                                                                                |
| Incr Delay (d2), s/veh                                                                             | 25.7                                                                              | 0.3                                                                               | 0.2                                                                               | 13.6                                                                              | 6.0                                                                               | 26.6                                                                              | 5.5                                                                                | 4.0                                                                                 | 0.1                                                                                 | 5.7                                                                                 | 1.7                                                                                 | 1.7                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 14.3                                                                              | 8.0                                                                               | 3.2                                                                               | 6.4                                                                               | 13.3                                                                              | 11.1                                                                              | 4.7                                                                                | 27.0                                                                                | 1.7                                                                                 | 4.4                                                                                 | 5.1                                                                                 | 5.2                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 89.9                                                                              | 49.1                                                                              | 19.6                                                                              | 83.3                                                                              | 67.1                                                                              | 54.9                                                                              | 77.8                                                                               | 64.7                                                                                | 43.1                                                                                | 71.9                                                                                | 15.6                                                                                | 15.6                                                                                |
| LnGrp LOS                                                                                          | F                                                                                 | D                                                                                 | B                                                                                 | F                                                                                 | E                                                                                 | D                                                                                 | E                                                                                  | E                                                                                   | D                                                                                   | E                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h                                                                                | 544                                                                               |                                                                                   |                                                                                   | 731                                                                               |                                                                                   |                                                                                   | 1102                                                                               |                                                                                     |                                                                                     | 612                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 61.1                                                                              |                                                                                   |                                                                                   | 65.5                                                                              |                                                                                   |                                                                                   | 64.9                                                                               |                                                                                     |                                                                                     | 27.5                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | E                                                                                  |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                  | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 13.3                                                                              | 60.2                                                                              | 14.7                                                                              | 39.7                                                                              | 13.5                                                                              | 60.0                                                                              | 25.2                                                                               | 29.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.5                                                                               | * 5.4                                                                             | 5.7                                                                               | 5.6                                                                               | 5.4                                                                               | 5.2                                                                               | 5.6                                                                                | 5.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 19.5                                                                              | * 55                                                                              | 19.3                                                                              | 34.4                                                                              | 19.6                                                                              | 54.8                                                                              | 24.4                                                                               | 29.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+l1), s                                                                       | 7.6                                                                               | 45.0                                                                              | 9.1                                                                               | 12.3                                                                              | 7.4                                                                               | 9.9                                                                               | 19.4                                                                               | 20.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.3                                                                               | 5.0                                                                               | 0.1                                                                               | 2.0                                                                               | 0.1                                                                               | 3.3                                                                               | 0.2                                                                                | 2.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 56.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 5: Rock Blvd &amp; Glendale Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 100                                                                               | 360                                                                               | 280                                                                               | 120                                                                               | 300                                                                               | 90                                                                                | 100                                                                                | 350                                                                                 | 90                                                                                  | 220                                                                                 | 980                                                                                 | 200                                                                                 |
| Future Volume (veh/h)                                                                              | 100                                                                               | 360                                                                               | 280                                                                               | 120                                                                               | 300                                                                               | 90                                                                                | 100                                                                                | 350                                                                                 | 90                                                                                  | 220                                                                                 | 980                                                                                 | 200                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                               |                                                                                     | 0.99                                                                                | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                              | 1752                                                                               | 1752                                                                                | 1752                                                                                | 1752                                                                                | 1752                                                                                | 1752                                                                                |
| Adj Flow Rate, veh/h                                                                               | 106                                                                               | 383                                                                               | 226                                                                               | 128                                                                               | 319                                                                               | 22                                                                                | 106                                                                                | 372                                                                                 | 56                                                                                  | 234                                                                                 | 1043                                                                                | 133                                                                                 |
| Peak Hour Factor                                                                                   | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                               | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Percent Heavy Veh, %                                                                               | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                | 10                                                                                 | 10                                                                                  | 10                                                                                  | 10                                                                                  | 10                                                                                  | 10                                                                                  |
| Cap, veh/h                                                                                         | 129                                                                               | 497                                                                               | 214                                                                               | 152                                                                               | 545                                                                               | 239                                                                               | 129                                                                                | 1171                                                                                | 518                                                                                 | 297                                                                                 | 1094                                                                                | 139                                                                                 |
| Arrive On Green                                                                                    | 0.08                                                                              | 0.15                                                                              | 0.15                                                                              | 0.09                                                                              | 0.16                                                                              | 0.16                                                                              | 0.08                                                                               | 0.35                                                                                | 0.35                                                                                | 0.09                                                                                | 0.37                                                                                | 0.37                                                                                |
| Sat Flow, veh/h                                                                                    | 1668                                                                              | 3328                                                                              | 1436                                                                              | 1668                                                                              | 3328                                                                              | 1460                                                                              | 1668                                                                               | 3328                                                                                | 1472                                                                                | 3237                                                                                | 2966                                                                                | 378                                                                                 |
| Grp Volume(v), veh/h                                                                               | 106                                                                               | 383                                                                               | 226                                                                               | 128                                                                               | 319                                                                               | 22                                                                                | 106                                                                                | 372                                                                                 | 56                                                                                  | 234                                                                                 | 585                                                                                 | 591                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1668                                                                              | 1664                                                                              | 1436                                                                              | 1668                                                                              | 1664                                                                              | 1460                                                                              | 1668                                                                               | 1664                                                                                | 1472                                                                                | 1618                                                                                | 1664                                                                                | 1680                                                                                |
| Q Serve(g_s), s                                                                                    | 8.5                                                                               | 14.9                                                                              | 12.8                                                                              | 10.2                                                                              | 12.0                                                                              | 1.7                                                                               | 8.5                                                                                | 11.0                                                                                | 3.5                                                                                 | 9.6                                                                                 | 46.1                                                                                | 46.3                                                                                |
| Cycle Q Clear(g_c), s                                                                              | 8.5                                                                               | 14.9                                                                              | 12.8                                                                              | 10.2                                                                              | 12.0                                                                              | 1.7                                                                               | 8.5                                                                                | 11.0                                                                                | 3.5                                                                                 | 9.6                                                                                 | 46.1                                                                                | 46.3                                                                                |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.22                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 129                                                                               | 497                                                                               | 214                                                                               | 152                                                                               | 545                                                                               | 239                                                                               | 129                                                                                | 1171                                                                                | 518                                                                                 | 297                                                                                 | 614                                                                                 | 620                                                                                 |
| V/C Ratio(X)                                                                                       | 0.82                                                                              | 0.77                                                                              | 1.05                                                                              | 0.84                                                                              | 0.59                                                                              | 0.09                                                                              | 0.82                                                                               | 0.32                                                                                | 0.11                                                                                | 0.79                                                                                | 0.95                                                                                | 0.95                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 240                                                                               | 602                                                                               | 260                                                                               | 239                                                                               | 602                                                                               | 264                                                                               | 242                                                                                | 1171                                                                                | 518                                                                                 | 1067                                                                                | 614                                                                                 | 620                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.95                                                                               | 0.95                                                                                | 0.95                                                                                | 0.74                                                                                | 0.74                                                                                | 0.74                                                                                |
| Uniform Delay (d), s/veh                                                                           | 61.4                                                                              | 55.2                                                                              | 23.2                                                                              | 60.4                                                                              | 52.2                                                                              | 47.9                                                                              | 61.4                                                                               | 31.9                                                                                | 29.5                                                                                | 60.0                                                                                | 41.4                                                                                | 41.5                                                                                |
| Incr Delay (d2), s/veh                                                                             | 12.3                                                                              | 5.0                                                                               | 70.0                                                                              | 14.6                                                                              | 1.2                                                                               | 0.2                                                                               | 11.7                                                                               | 0.7                                                                                 | 0.4                                                                                 | 3.5                                                                                 | 21.6                                                                                | 21.8                                                                                |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 7.3                                                                               | 10.8                                                                              | 13.6                                                                              | 8.6                                                                               | 8.8                                                                               | 1.2                                                                               | 7.2                                                                                | 8.0                                                                                 | 2.3                                                                                 | 6.9                                                                                 | 29.1                                                                                | 29.4                                                                                |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 73.7                                                                              | 60.2                                                                              | 93.1                                                                              | 75.0                                                                              | 53.4                                                                              | 48.1                                                                              | 73.1                                                                               | 32.6                                                                                | 29.9                                                                                | 63.5                                                                                | 63.1                                                                                | 63.2                                                                                |
| LnGrp LOS                                                                                          | E                                                                                 | E                                                                                 | F                                                                                 | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                  | C                                                                                   | C                                                                                   | E                                                                                   | E                                                                                   | E                                                                                   |
| Approach Vol, veh/h                                                                                | 715                                                                               |                                                                                   |                                                                                   | 469                                                                               |                                                                                   |                                                                                   | 534                                                                                |                                                                                     |                                                                                     | 1410                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 72.6                                                                              |                                                                                   |                                                                                   | 59.1                                                                              |                                                                                   |                                                                                   | 40.4                                                                               |                                                                                     |                                                                                     | 63.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | D                                                                                  |                                                                                     |                                                                                     | E                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                  | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 17.9                                                                              | 52.9                                                                              | 18.0                                                                              | 25.7                                                                              | 15.8                                                                              | 55.0                                                                              | 16.0                                                                               | 27.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.5                                                                               | * 5.4                                                                             | 5.7                                                                               | 5.6                                                                               | 5.4                                                                               | 5.2                                                                               | 5.6                                                                                | 5.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 44.5                                                                              | * 25                                                                              | 19.3                                                                              | 24.4                                                                              | 19.6                                                                              | 49.8                                                                              | 19.4                                                                               | 24.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s                                                                       | 11.6                                                                              | 13.0                                                                              | 12.2                                                                              | 16.9                                                                              | 10.5                                                                              | 48.3                                                                              | 10.5                                                                               | 14.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.8                                                                               | 2.0                                                                               | 0.2                                                                               | 2.0                                                                               | 0.2                                                                               | 1.1                                                                               | 0.1                                                                                | 1.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 60.8                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 5: Rock Blvd &amp; Glendale Ave

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 180                                                                               | 350                                                                               | 240                                                                               | 90                                                                                | 600                                                                               | 270                                                                               | 140                                                                                | 940                                                                                 | 60                                                                                  | 80                                                                                  | 390                                                                                 | 150                                                                                 |
| Future Volume (veh/h)                                                                              | 180                                                                               | 350                                                                               | 240                                                                               | 90                                                                                | 600                                                                               | 270                                                                               | 140                                                                                | 940                                                                                 | 60                                                                                  | 80                                                                                  | 390                                                                                 | 150                                                                                 |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                               |                                                                                     | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                               | 1811                                                                                | 1811                                                                                | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 194                                                                               | 376                                                                               | 193                                                                               | 97                                                                                | 645                                                                               | 78                                                                                | 151                                                                                | 1011                                                                                | 37                                                                                  | 86                                                                                  | 419                                                                                 | 101                                                                                 |
| Peak Hour Factor                                                                                   | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                               | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                  | 6                                                                                   | 6                                                                                   | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 217                                                                               | 917                                                                               | 403                                                                               | 117                                                                               | 720                                                                               | 311                                                                               | 168                                                                                | 1453                                                                                | 635                                                                                 | 129                                                                                 | 1002                                                                                | 239                                                                                 |
| Arrive On Green                                                                                    | 0.13                                                                              | 0.27                                                                              | 0.27                                                                              | 0.07                                                                              | 0.21                                                                              | 0.21                                                                              | 0.03                                                                               | 0.14                                                                                | 0.14                                                                                | 0.04                                                                                | 0.37                                                                                | 0.37                                                                                |
| Sat Flow, veh/h                                                                                    | 1725                                                                              | 3441                                                                              | 1514                                                                              | 1725                                                                              | 3441                                                                              | 1486                                                                              | 1725                                                                               | 3441                                                                                | 1503                                                                                | 3346                                                                                | 2742                                                                                | 654                                                                                 |
| Grp Volume(v), veh/h                                                                               | 194                                                                               | 376                                                                               | 193                                                                               | 97                                                                                | 645                                                                               | 78                                                                                | 151                                                                                | 1011                                                                                | 37                                                                                  | 86                                                                                  | 261                                                                                 | 259                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1725                                                                              | 1721                                                                              | 1514                                                                              | 1725                                                                              | 1721                                                                              | 1486                                                                              | 1725                                                                               | 1721                                                                                | 1503                                                                                | 1673                                                                                | 1721                                                                                | 1676                                                                                |
| Q Serve(g_s), s                                                                                    | 16.6                                                                              | 13.5                                                                              | 11.1                                                                              | 8.3                                                                               | 27.4                                                                              | 5.2                                                                               | 13.1                                                                               | 42.0                                                                                | 3.2                                                                                 | 3.8                                                                                 | 17.0                                                                                | 17.4                                                                                |
| Cycle Q Clear(g_c), s                                                                              | 16.6                                                                              | 13.5                                                                              | 11.1                                                                              | 8.3                                                                               | 27.4                                                                              | 5.2                                                                               | 13.1                                                                               | 42.0                                                                                | 3.2                                                                                 | 3.8                                                                                 | 17.0                                                                                | 17.4                                                                                |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.39                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 217                                                                               | 917                                                                               | 403                                                                               | 117                                                                               | 720                                                                               | 311                                                                               | 168                                                                                | 1453                                                                                | 635                                                                                 | 129                                                                                 | 629                                                                                 | 612                                                                                 |
| V/C Ratio(X)                                                                                       | 0.89                                                                              | 0.41                                                                              | 0.48                                                                              | 0.83                                                                              | 0.90                                                                              | 0.25                                                                              | 0.90                                                                               | 0.70                                                                                | 0.06                                                                                | 0.67                                                                                | 0.42                                                                                | 0.42                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 281                                                                               | 1019                                                                              | 448                                                                               | 164                                                                               | 789                                                                               | 341                                                                               | 168                                                                                | 1453                                                                                | 635                                                                                 | 323                                                                                 | 629                                                                                 | 612                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.33                                                                               | 0.33                                                                                | 0.33                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.62                                                                               | 0.62                                                                                | 0.62                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh                                                                           | 64.6                                                                              | 45.3                                                                              | 22.0                                                                              | 69.0                                                                              | 57.7                                                                              | 30.6                                                                              | 71.9                                                                               | 55.4                                                                                | 38.7                                                                                | 71.2                                                                                | 35.6                                                                                | 35.7                                                                                |
| Incr Delay (d2), s/veh                                                                             | 24.0                                                                              | 0.3                                                                               | 0.9                                                                               | 20.6                                                                              | 12.1                                                                              | 0.4                                                                               | 30.1                                                                               | 1.7                                                                                 | 0.1                                                                                 | 5.7                                                                                 | 2.0                                                                                 | 2.1                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 13.6                                                                              | 9.9                                                                               | 7.4                                                                               | 7.8                                                                               | 19.1                                                                              | 4.5                                                                               | 11.1                                                                               | 25.7                                                                                | 2.2                                                                                 | 3.1                                                                                 | 12.0                                                                                | 12.0                                                                                |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 88.6                                                                              | 45.6                                                                              | 22.9                                                                              | 89.6                                                                              | 69.8                                                                              | 31.0                                                                              | 101.9                                                                              | 57.1                                                                                | 38.8                                                                                | 76.9                                                                                | 37.6                                                                                | 37.8                                                                                |
| LnGrp LOS                                                                                          | F                                                                                 | D                                                                                 | C                                                                                 | F                                                                                 | E                                                                                 | C                                                                                 | F                                                                                  | E                                                                                   | D                                                                                   | E                                                                                   | D                                                                                   | D                                                                                   |
| Approach Vol, veh/h                                                                                | 763                                                                               |                                                                                   |                                                                                   | 820                                                                               |                                                                                   |                                                                                   | 1199                                                                               |                                                                                     |                                                                                     | 606                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 50.8                                                                              |                                                                                   |                                                                                   | 68.5                                                                              |                                                                                   |                                                                                   | 62.2                                                                               |                                                                                     |                                                                                     | 43.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | E                                                                                  |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                  | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 11.3                                                                              | 68.7                                                                              | 15.9                                                                              | 45.6                                                                              | 20.0                                                                              | 60.0                                                                              | 24.5                                                                               | 37.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.5                                                                               | * 5.4                                                                             | 5.7                                                                               | 5.6                                                                               | 5.4                                                                               | 5.2                                                                               | 5.6                                                                                | 5.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 14.5                                                                              | * 55                                                                              | 14.3                                                                              | 44.4                                                                              | 14.6                                                                              | 54.8                                                                              | 24.4                                                                               | 34.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s                                                                       | 5.8                                                                               | 44.0                                                                              | 10.3                                                                              | 15.5                                                                              | 15.1                                                                              | 19.4                                                                              | 18.6                                                                               | 29.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.1                                                                               | 5.3                                                                               | 0.1                                                                               | 3.3                                                                               | 0.0                                                                               | 3.5                                                                               | 0.3                                                                                | 2.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 57.8                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 4: Rock Blvd &amp; Hymer Ave

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 51                                                                                | 6                                                                                 | 17                                                                                | 6                                                                                 | 3                                                                                 | 39                                                                                | 10                                                                                  | 552                                                                                 | 14                                                                                  | 66                                                                                  | 1239                                                                                | 156                                                                                 |
| Future Volume (veh/h)        | 51                                                                                | 6                                                                                 | 17                                                                                | 6                                                                                 | 3                                                                                 | 39                                                                                | 10                                                                                  | 552                                                                                 | 14                                                                                  | 66                                                                                  | 1239                                                                                | 156                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                                | 1767                                                                                | 1767                                                                                | 1767                                                                                | 1767                                                                                | 1767                                                                                |
| Adj Flow Rate, veh/h         | 54                                                                                | 6                                                                                 | 13                                                                                | 6                                                                                 | 3                                                                                 | 28                                                                                | 11                                                                                  | 581                                                                                 | 11                                                                                  | 69                                                                                  | 1304                                                                                | 115                                                                                 |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                   | 9                                                                                   | 9                                                                                   | 9                                                                                   | 9                                                                                   | 9                                                                                   |
| Cap, veh/h                   | 129                                                                               | 21                                                                                | 46                                                                                | 110                                                                               | 5                                                                                 | 43                                                                                | 282                                                                                 | 2497                                                                                | 47                                                                                  | 642                                                                                 | 2371                                                                                | 208                                                                                 |
| Arrive On Green              | 0.05                                                                              | 0.04                                                                              | 0.04                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                              | 0.01                                                                                | 0.74                                                                                | 0.74                                                                                | 0.03                                                                                | 0.76                                                                                | 0.76                                                                                |
| Sat Flow, veh/h              | 1682                                                                              | 492                                                                               | 1065                                                                              | 1682                                                                              | 145                                                                               | 1351                                                                              | 1682                                                                                | 3369                                                                                | 64                                                                                  | 1682                                                                                | 3114                                                                                | 274                                                                                 |
| Grp Volume(v), veh/h         | 54                                                                                | 0                                                                                 | 19                                                                                | 6                                                                                 | 0                                                                                 | 31                                                                                | 11                                                                                  | 289                                                                                 | 303                                                                                 | 69                                                                                  | 701                                                                                 | 718                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1682                                                                              | 0                                                                                 | 1557                                                                              | 1682                                                                              | 0                                                                                 | 1496                                                                              | 1682                                                                                | 1678                                                                                | 1755                                                                                | 1682                                                                                | 1678                                                                                | 1710                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 1.7                                                                               | 0.5                                                                               | 0.0                                                                               | 2.9                                                                               | 0.2                                                                                 | 7.5                                                                                 | 7.6                                                                                 | 1.3                                                                                 | 23.9                                                                                | 24.2                                                                                |
| Cycle Q Clear(g_c), s        | 0.0                                                                               | 0.0                                                                               | 1.7                                                                               | 0.5                                                                               | 0.0                                                                               | 2.9                                                                               | 0.2                                                                                 | 7.5                                                                                 | 7.6                                                                                 | 1.3                                                                                 | 23.9                                                                                | 24.2                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.68                                                                              | 1.00                                                                              |                                                                                   | 0.90                                                                              | 1.00                                                                                |                                                                                     | 0.04                                                                                | 1.00                                                                                |                                                                                     | 0.16                                                                                |
| Lane Grp Cap(c), veh/h       | 129                                                                               | 0                                                                                 | 67                                                                                | 110                                                                               | 0                                                                                 | 47                                                                                | 282                                                                                 | 1244                                                                                | 1301                                                                                | 642                                                                                 | 1278                                                                                | 1302                                                                                |
| V/C Ratio(X)                 | 0.42                                                                              | 0.00                                                                              | 0.28                                                                              | 0.05                                                                              | 0.00                                                                              | 0.65                                                                              | 0.04                                                                                | 0.23                                                                                | 0.23                                                                                | 0.11                                                                                | 0.55                                                                                | 0.55                                                                                |
| Avail Cap(c_a), veh/h        | 286                                                                               | 0                                                                                 | 272                                                                               | 226                                                                               | 0                                                                                 | 208                                                                               | 447                                                                                 | 1244                                                                                | 1301                                                                                | 713                                                                                 | 1278                                                                                | 1302                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Uniform Delay (d), s/veh     | 63.7                                                                              | 0.0                                                                               | 64.9                                                                              | 65.4                                                                              | 0.0                                                                               | 67.0                                                                              | 6.0                                                                                 | 5.7                                                                                 | 5.7                                                                                 | 3.9                                                                                 | 6.8                                                                                 | 6.9                                                                                 |
| Incr Delay (d2), s/veh       | 2.2                                                                               | 0.0                                                                               | 2.3                                                                               | 0.2                                                                               | 0.0                                                                               | 14.2                                                                              | 0.1                                                                                 | 0.4                                                                                 | 0.4                                                                                 | 0.1                                                                                 | 1.6                                                                                 | 1.6                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 3.5                                                                               | 0.0                                                                               | 1.3                                                                               | 0.4                                                                               | 0.0                                                                               | 2.3                                                                               | 0.1                                                                                 | 4.8                                                                                 | 5.0                                                                                 | 0.8                                                                                 | 12.8                                                                                | 13.1                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 65.9                                                                              | 0.0                                                                               | 67.2                                                                              | 65.6                                                                              | 0.0                                                                               | 81.3                                                                              | 6.0                                                                                 | 6.1                                                                                 | 6.1                                                                                 | 4.0                                                                                 | 8.4                                                                                 | 8.5                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   | E                                                                                 | E                                                                                 |                                                                                   | F                                                                                 | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 73                                                                                |                                                                                   |                                                                                   | 37                                                                                |                                                                                   |                                                                                   | 603                                                                                 |                                                                                     |                                                                                     | 1488                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 66.2                                                                              |                                                                                   |                                                                                   | 78.7                                                                              |                                                                                   |                                                                                   | 6.1                                                                                 |                                                                                     |                                                                                     | 8.2                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.2                                                                               | 109.0                                                                             | 11.9                                                                              | 9.9                                                                               | 6.3                                                                               | 111.8                                                                             | 10.4                                                                                | 11.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 5.2                                                                               | 5.5                                                                               | 5.5                                                                               | 4.6                                                                               | 5.2                                                                               | 5.5                                                                                 | 5.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.5                                                                              | 69.8                                                                              | 19.5                                                                              | 19.5                                                                              | 15.4                                                                              | 64.8                                                                              | 14.5                                                                                | 24.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.3                                                                               | 9.6                                                                               | 2.0                                                                               | 4.9                                                                               | 2.2                                                                               | 26.2                                                                              | 2.5                                                                                 | 3.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 4.2                                                                               | 0.1                                                                               | 0.1                                                                               | 0.0                                                                               | 14.2                                                                              | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 10.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 4: Rock Blvd &amp; Hymer Ave

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 236                                                                               | 7                                                                                 | 10                                                                                | 21                                                                                | 1                                                                                 | 175                                                                               | 3                                                                                   | 1497                                                                                | 14                                                                                  | 64                                                                                  | 567                                                                                 | 45                                                                                  |
| Future Volume (veh/h)        | 236                                                                               | 7                                                                                 | 10                                                                                | 21                                                                                | 1                                                                                 | 175                                                                               | 3                                                                                   | 1497                                                                                | 14                                                                                  | 64                                                                                  | 567                                                                                 | 45                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.99                                                                              |                                                                                   | 0.99                                                                              | 0.99                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 0.97                                                                                | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 241                                                                               | 7                                                                                 | 7                                                                                 | 21                                                                                | 1                                                                                 | 125                                                                               | 3                                                                                   | 1528                                                                                | 10                                                                                  | 65                                                                                  | 579                                                                                 | 32                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 304                                                                               | 166                                                                               | 166                                                                               | 234                                                                               | 1                                                                                 | 144                                                                               | 422                                                                                 | 1644                                                                                | 11                                                                                  | 121                                                                                 | 1643                                                                                | 91                                                                                  |
| Arrive On Green              | 0.14                                                                              | 0.20                                                                              | 0.20                                                                              | 0.03                                                                              | 0.09                                                                              | 0.09                                                                              | 0.00                                                                                | 0.47                                                                                | 0.47                                                                                | 0.06                                                                                | 0.98                                                                                | 0.98                                                                                |
| Sat Flow, veh/h              | 1739                                                                              | 835                                                                               | 835                                                                               | 1739                                                                              | 12                                                                                | 1518                                                                              | 1739                                                                                | 3532                                                                                | 23                                                                                  | 1739                                                                                | 3341                                                                                | 184                                                                                 |
| Grp Volume(v), veh/h         | 241                                                                               | 0                                                                                 | 14                                                                                | 21                                                                                | 0                                                                                 | 126                                                                               | 3                                                                                   | 750                                                                                 | 788                                                                                 | 65                                                                                  | 300                                                                                 | 311                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1739                                                                              | 0                                                                                 | 1670                                                                              | 1739                                                                              | 0                                                                                 | 1530                                                                              | 1739                                                                                | 1735                                                                                | 1821                                                                                | 1739                                                                                | 1735                                                                                | 1791                                                                                |
| Q Serve(g_s), s              | 18.2                                                                              | 0.0                                                                               | 1.0                                                                               | 1.6                                                                               | 0.0                                                                               | 12.2                                                                              | 0.1                                                                                 | 61.1                                                                                | 61.2                                                                                | 2.9                                                                                 | 0.6                                                                                 | 0.6                                                                                 |
| Cycle Q Clear(g_c), s        | 18.2                                                                              | 0.0                                                                               | 1.0                                                                               | 1.6                                                                               | 0.0                                                                               | 12.2                                                                              | 0.1                                                                                 | 61.1                                                                                | 61.2                                                                                | 2.9                                                                                 | 0.6                                                                                 | 0.6                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.50                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 0.01                                                                                | 1.00                                                                                |                                                                                     | 0.10                                                                                |
| Lane Grp Cap(c), veh/h       | 304                                                                               | 0                                                                                 | 332                                                                               | 234                                                                               | 0                                                                                 | 145                                                                               | 422                                                                                 | 807                                                                                 | 847                                                                                 | 121                                                                                 | 853                                                                                 | 881                                                                                 |
| V/C Ratio(X)                 | 0.79                                                                              | 0.00                                                                              | 0.04                                                                              | 0.09                                                                              | 0.00                                                                              | 0.87                                                                              | 0.01                                                                                | 0.93                                                                                | 0.93                                                                                | 0.54                                                                                | 0.35                                                                                | 0.35                                                                                |
| Avail Cap(c_a), veh/h        | 406                                                                               | 0                                                                                 | 332                                                                               | 344                                                                               | 0                                                                                 | 148                                                                               | 594                                                                                 | 807                                                                                 | 847                                                                                 | 247                                                                                 | 853                                                                                 | 881                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.63                                                                                | 0.63                                                                                | 0.63                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh     | 50.3                                                                              | 0.0                                                                               | 48.5                                                                              | 57.7                                                                              | 0.0                                                                               | 67.0                                                                              | 21.2                                                                                | 37.8                                                                                | 37.8                                                                                | 33.5                                                                                | 0.6                                                                                 | 0.6                                                                                 |
| Incr Delay (d2), s/veh       | 7.6                                                                               | 0.0                                                                               | 0.1                                                                               | 0.2                                                                               | 0.0                                                                               | 38.6                                                                              | 0.0                                                                                 | 13.1                                                                                | 12.7                                                                                | 3.6                                                                                 | 1.1                                                                                 | 1.1                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 13.4                                                                              | 0.0                                                                               | 0.8                                                                               | 1.3                                                                               | 0.0                                                                               | 10.5                                                                              | 0.1                                                                                 | 35.5                                                                                | 37.0                                                                                | 2.3                                                                                 | 0.8                                                                                 | 0.8                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 57.9                                                                              | 0.0                                                                               | 48.6                                                                              | 57.9                                                                              | 0.0                                                                               | 105.6                                                                             | 21.2                                                                                | 50.8                                                                                | 50.5                                                                                | 37.1                                                                                | 1.7                                                                                 | 1.7                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   | D                                                                                 | E                                                                                 |                                                                                   | F                                                                                 | C                                                                                   | D                                                                                   | D                                                                                   | D                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 255                                                                               |                                                                                   |                                                                                   |                                                                                   | 147                                                                               |                                                                                   |                                                                                     |                                                                                     | 1541                                                                                |                                                                                     | 676                                                                                 |                                                                                     |
| Approach Delay, s/veh        | 57.4                                                                              |                                                                                   |                                                                                   |                                                                                   | 98.8                                                                              |                                                                                   |                                                                                     |                                                                                     | 50.6                                                                                |                                                                                     | 5.1                                                                                 |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     | A                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.2                                                                               | 75.0                                                                              | 26.2                                                                              | 19.7                                                                              | 5.2                                                                               | 79.0                                                                              | 10.5                                                                                | 35.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 5.2                                                                               | 5.5                                                                               | 5.5                                                                               | 4.6                                                                               | 5.2                                                                               | 5.5                                                                                 | 5.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 15.5                                                                              | 69.8                                                                              | 29.5                                                                              | 14.5                                                                              | 15.4                                                                              | 69.8                                                                              | 14.5                                                                                | 29.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 4.9                                                                               | 63.2                                                                              | 20.2                                                                              | 14.2                                                                              | 2.1                                                                               | 2.6                                                                               | 3.6                                                                                 | 3.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 4.9                                                                               | 0.5                                                                               | 0.0                                                                               | 0.0                                                                               | 4.3                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   | 42.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 4: Rock Blvd &amp; Hymer Ave

04/06/2026

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 60                                                                                | 5                                                                                 | 10                                                                                | 10                                                                                | 0                                                                                 | 30                                                                                | 15                                                                                  | 490                                                                                 | 20                                                                                  | 100                                                                                 | 1470                                                                                | 100                                                                                 |
| Future Volume (veh/h)        | 60                                                                                | 5                                                                                 | 10                                                                                | 10                                                                                | 0                                                                                 | 30                                                                                | 15                                                                                  | 490                                                                                 | 20                                                                                  | 100                                                                                 | 1470                                                                                | 100                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                              | 1767                                                                                | 1767                                                                                | 1767                                                                                | 1767                                                                                | 1767                                                                                | 1767                                                                                |
| Adj Flow Rate, veh/h         | 63                                                                                | 5                                                                                 | 6                                                                                 | 11                                                                                | 0                                                                                 | 19                                                                                | 16                                                                                  | 516                                                                                 | 17                                                                                  | 105                                                                                 | 1547                                                                                | 56                                                                                  |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                 | 9                                                                                   | 9                                                                                   | 9                                                                                   | 9                                                                                   | 9                                                                                   | 9                                                                                   |
| Cap, veh/h                   | 139                                                                               | 32                                                                                | 38                                                                                | 114                                                                               | 0                                                                                 | 43                                                                                | 239                                                                                 | 2422                                                                                | 80                                                                                  | 674                                                                                 | 2474                                                                                | 89                                                                                  |
| Arrive On Green              | 0.05                                                                              | 0.04                                                                              | 0.04                                                                              | 0.04                                                                              | 0.00                                                                              | 0.03                                                                              | 0.02                                                                                | 0.73                                                                                | 0.73                                                                                | 0.04                                                                                | 0.75                                                                                | 0.75                                                                                |
| Sat Flow, veh/h              | 1682                                                                              | 725                                                                               | 870                                                                               | 1682                                                                              | 0                                                                                 | 1473                                                                              | 1682                                                                                | 3316                                                                                | 109                                                                                 | 1682                                                                                | 3301                                                                                | 119                                                                                 |
| Grp Volume(v), veh/h         | 63                                                                                | 0                                                                                 | 11                                                                                | 11                                                                                | 0                                                                                 | 19                                                                                | 16                                                                                  | 261                                                                                 | 272                                                                                 | 105                                                                                 | 784                                                                                 | 819                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1682                                                                              | 0                                                                                 | 1596                                                                              | 1682                                                                              | 0                                                                                 | 1473                                                                              | 1682                                                                                | 1678                                                                                | 1747                                                                                | 1682                                                                                | 1678                                                                                | 1742                                                                                |
| Q Serve(g_s), s              | 0.5                                                                               | 0.0                                                                               | 0.9                                                                               | 0.9                                                                               | 0.0                                                                               | 1.7                                                                               | 0.3                                                                                 | 6.7                                                                                 | 6.7                                                                                 | 2.1                                                                                 | 29.7                                                                                | 30.0                                                                                |
| Cycle Q Clear(g_c), s        | 0.5                                                                               | 0.0                                                                               | 0.9                                                                               | 0.9                                                                               | 0.0                                                                               | 1.7                                                                               | 0.3                                                                                 | 6.7                                                                                 | 6.7                                                                                 | 2.1                                                                                 | 29.7                                                                                | 30.0                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.55                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.06                                                                                | 1.00                                                                                |                                                                                     | 0.07                                                                                |
| Lane Grp Cap(c), veh/h       | 139                                                                               | 0                                                                                 | 70                                                                                | 114                                                                               | 0                                                                                 | 43                                                                                | 239                                                                                 | 1226                                                                                | 1276                                                                                | 674                                                                                 | 1258                                                                                | 1305                                                                                |
| V/C Ratio(X)                 | 0.45                                                                              | 0.00                                                                              | 0.16                                                                              | 0.10                                                                              | 0.00                                                                              | 0.44                                                                              | 0.07                                                                                | 0.21                                                                                | 0.21                                                                                | 0.16                                                                                | 0.62                                                                                | 0.63                                                                                |
| Avail Cap(c_a), veh/h        | 234                                                                               | 0                                                                                 | 230                                                                               | 234                                                                               | 0                                                                                 | 213                                                                               | 403                                                                                 | 1226                                                                                | 1276                                                                                | 744                                                                                 | 1258                                                                                | 1305                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.84                                                                                | 0.84                                                                                | 0.84                                                                                |
| Uniform Delay (d), s/veh     | 60.9                                                                              | 0.0                                                                               | 62.1                                                                              | 63.1                                                                              | 0.0                                                                               | 64.5                                                                              | 7.3                                                                                 | 5.8                                                                                 | 5.8                                                                                 | 4.1                                                                                 | 8.0                                                                                 | 8.0                                                                                 |
| Incr Delay (d2), s/veh       | 2.3                                                                               | 0.0                                                                               | 1.0                                                                               | 0.4                                                                               | 0.0                                                                               | 7.0                                                                               | 0.1                                                                                 | 0.4                                                                                 | 0.4                                                                                 | 0.1                                                                                 | 2.0                                                                                 | 1.9                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 3.9                                                                               | 0.0                                                                               | 0.7                                                                               | 0.7                                                                               | 0.0                                                                               | 1.3                                                                               | 0.2                                                                                 | 4.2                                                                                 | 4.4                                                                                 | 1.2                                                                                 | 15.1                                                                                | 15.7                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 63.2                                                                              | 0.0                                                                               | 63.2                                                                              | 63.4                                                                              | 0.0                                                                               | 71.5                                                                              | 7.4                                                                                 | 6.2                                                                                 | 6.2                                                                                 | 4.2                                                                                 | 9.9                                                                                 | 9.9                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   | E                                                                                 | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 74                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 549                                                                                 |                                                                                     |                                                                                     | 1708                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 63.2                                                                              |                                                                                   |                                                                                   | 68.5                                                                              |                                                                                   |                                                                                   | 6.2                                                                                 |                                                                                     |                                                                                     | 9.6                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.4                                                                               | 103.8                                                                             | 12.3                                                                              | 9.4                                                                               | 6.9                                                                               | 106.4                                                                             | 10.3                                                                                | 11.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 5.2                                                                               | 5.5                                                                               | 5.5                                                                               | 4.6                                                                               | 5.2                                                                               | 5.5                                                                                 | 5.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.5                                                                              | 69.8                                                                              | 14.5                                                                              | 19.5                                                                              | 15.4                                                                              | 64.8                                                                              | 14.5                                                                                | 19.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 4.1                                                                               | 8.7                                                                               | 2.5                                                                               | 3.7                                                                               | 2.3                                                                               | 32.0                                                                              | 2.9                                                                                 | 2.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 3.7                                                                               | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 16.1                                                                              | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 11.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 4: Rock Blvd &amp; Hymer Ave

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 200                                                                               | 5                                                                                 | 15                                                                                | 30                                                                                | 5                                                                                 | 220                                                                               | 5                                                                                   | 1360                                                                                | 20                                                                                  | 70                                                                                  | 600                                                                                 | 40                                                                                  |
| Future Volume (veh/h)        | 200                                                                               | 5                                                                                 | 15                                                                                | 30                                                                                | 5                                                                                 | 220                                                                               | 5                                                                                   | 1360                                                                                | 20                                                                                  | 70                                                                                  | 600                                                                                 | 40                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 0.99                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 0.97                                                                                | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 204                                                                               | 5                                                                                 | 12                                                                                | 31                                                                                | 5                                                                                 | 162                                                                               | 5                                                                                   | 1388                                                                                | 16                                                                                  | 71                                                                                  | 612                                                                                 | 31                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 254                                                                               | 86                                                                                | 207                                                                               | 236                                                                               | 4                                                                                 | 144                                                                               | 415                                                                                 | 1634                                                                                | 19                                                                                  | 149                                                                                 | 1651                                                                                | 84                                                                                  |
| Arrive On Green              | 0.12                                                                              | 0.18                                                                              | 0.18                                                                              | 0.03                                                                              | 0.10                                                                              | 0.10                                                                              | 0.01                                                                                | 0.47                                                                                | 0.47                                                                                | 0.07                                                                                | 0.98                                                                                | 0.98                                                                                |
| Sat Flow, veh/h              | 1739                                                                              | 474                                                                               | 1138                                                                              | 1739                                                                              | 46                                                                                | 1490                                                                              | 1739                                                                                | 3511                                                                                | 40                                                                                  | 1739                                                                                | 3359                                                                                | 170                                                                                 |
| Grp Volume(v), veh/h         | 204                                                                               | 0                                                                                 | 17                                                                                | 31                                                                                | 0                                                                                 | 167                                                                               | 5                                                                                   | 685                                                                                 | 719                                                                                 | 71                                                                                  | 316                                                                                 | 327                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1739                                                                              | 0                                                                                 | 1612                                                                              | 1739                                                                              | 0                                                                                 | 1536                                                                              | 1739                                                                                | 1735                                                                                | 1817                                                                                | 1739                                                                                | 1735                                                                                | 1794                                                                                |
| Q Serve(g_s), s              | 15.4                                                                              | 0.0                                                                               | 1.3                                                                               | 2.4                                                                               | 0.0                                                                               | 14.5                                                                              | 0.2                                                                                 | 52.4                                                                                | 52.5                                                                                | 3.2                                                                                 | 0.7                                                                                 | 0.7                                                                                 |
| Cycle Q Clear(g_c), s        | 15.4                                                                              | 0.0                                                                               | 1.3                                                                               | 2.4                                                                               | 0.0                                                                               | 14.5                                                                              | 0.2                                                                                 | 52.4                                                                                | 52.5                                                                                | 3.2                                                                                 | 0.7                                                                                 | 0.7                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.71                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                                |                                                                                     | 0.02                                                                                | 1.00                                                                                |                                                                                     | 0.09                                                                                |
| Lane Grp Cap(c), veh/h       | 254                                                                               | 0                                                                                 | 294                                                                               | 236                                                                               | 0                                                                                 | 148                                                                               | 415                                                                                 | 807                                                                                 | 846                                                                                 | 149                                                                                 | 853                                                                                 | 882                                                                                 |
| V/C Ratio(X)                 | 0.80                                                                              | 0.00                                                                              | 0.06                                                                              | 0.13                                                                              | 0.00                                                                              | 1.12                                                                              | 0.01                                                                                | 0.85                                                                                | 0.85                                                                                | 0.48                                                                                | 0.37                                                                                | 0.37                                                                                |
| Avail Cap(c_a), veh/h        | 390                                                                               | 0                                                                                 | 317                                                                               | 346                                                                               | 0                                                                                 | 148                                                                               | 583                                                                                 | 807                                                                                 | 846                                                                                 | 271                                                                                 | 853                                                                                 | 882                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Uniform Delay (d), s/veh     | 51.4                                                                              | 0.0                                                                               | 50.7                                                                              | 57.8                                                                              | 0.0                                                                               | 67.8                                                                              | 21.0                                                                                | 35.4                                                                                | 35.5                                                                                | 29.7                                                                                | 0.6                                                                                 | 0.6                                                                                 |
| Incr Delay (d2), s/veh       | 6.7                                                                               | 0.0                                                                               | 0.1                                                                               | 0.2                                                                               | 0.0                                                                               | 111.4                                                                             | 0.0                                                                                 | 7.7                                                                                 | 7.4                                                                                 | 2.1                                                                                 | 1.1                                                                                 | 1.1                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 11.6                                                                              | 0.0                                                                               | 1.0                                                                               | 1.9                                                                               | 0.0                                                                               | 16.3                                                                              | 0.2                                                                                 | 30.2                                                                                | 31.5                                                                                | 2.4                                                                                 | 0.8                                                                                 | 0.8                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 58.2                                                                              | 0.0                                                                               | 50.8                                                                              | 58.0                                                                              | 0.0                                                                               | 179.1                                                                             | 21.0                                                                                | 43.1                                                                                | 42.9                                                                                | 31.8                                                                                | 1.8                                                                                 | 1.7                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   | D                                                                                 | E                                                                                 |                                                                                   | F                                                                                 | C                                                                                   | D                                                                                   | D                                                                                   | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 221                                                                               |                                                                                   |                                                                                   | 198                                                                               |                                                                                   |                                                                                   | 1409                                                                                |                                                                                     |                                                                                     | 714                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 57.6                                                                              |                                                                                   |                                                                                   | 160.2                                                                             |                                                                                   |                                                                                   | 42.9                                                                                |                                                                                     |                                                                                     | 4.7                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | D                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.5                                                                               | 75.0                                                                              | 23.3                                                                              | 20.0                                                                              | 5.5                                                                               | 78.9                                                                              | 10.5                                                                                | 32.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 5.2                                                                               | 5.5                                                                               | 5.5                                                                               | 4.6                                                                               | 5.2                                                                               | 5.5                                                                                 | 5.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 15.5                                                                              | 69.8                                                                              | 29.5                                                                              | 14.5                                                                              | 15.4                                                                              | 69.8                                                                              | 14.5                                                                                | 29.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 5.2                                                                               | 54.5                                                                              | 17.4                                                                              | 16.5                                                                              | 2.2                                                                               | 2.7                                                                               | 4.4                                                                                 | 3.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 8.7                                                                               | 0.4                                                                               | 0.0                                                                               | 0.0                                                                               | 4.6                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 42.6                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 20: Rock Blvd &amp; WB Ramps

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |  |                                                                                     |                                                                                     |  |  |
| Traffic Volume (veh/h)       | 0                                                                                 | 0                                                                                 | 0                                                                                 | 299                                                                               | 0                                                                                 | 52                                                                                | 214                                                                                 | 404                                                                                 | 0                                                                                   | 0                                                                                   | 774                                                                                 | 223                                                                                 |
| Future Volume (veh/h)        | 0                                                                                 | 0                                                                                 | 0                                                                                 | 299                                                                               | 0                                                                                 | 52                                                                                | 214                                                                                 | 404                                                                                 | 0                                                                                   | 0                                                                                   | 774                                                                                 | 223                                                                                 |
| Initial Q (Qb), veh          |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       |                                                                                   |                                                                                   |                                                                                   | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 0                                                                                   | 0                                                                                   | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h         |                                                                                   |                                                                                   |                                                                                   | 315                                                                               | 0                                                                                 | 28                                                                                | 225                                                                                 | 425                                                                                 | 0                                                                                   | 0                                                                                   | 815                                                                                 | 164                                                                                 |
| Peak Hour Factor             |                                                                                   |                                                                                   |                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         |                                                                                   |                                                                                   |                                                                                   | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                   |                                                                                   |                                                                                   |                                                                                   | 348                                                                               | 0                                                                                 | 310                                                                               | 419                                                                                 | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1735                                                                                | 349                                                                                 |
| Arrive On Green              |                                                                                   |                                                                                   |                                                                                   | 0.20                                                                              | 0.00                                                                              | 0.20                                                                              | 0.07                                                                                | 0.71                                                                                | 0.00                                                                                | 0.00                                                                                | 0.61                                                                                | 0.61                                                                                |
| Sat Flow, veh/h              |                                                                                   |                                                                                   |                                                                                   | 1725                                                                              | 0                                                                                 | 1535                                                                              | 1725                                                                                | 3532                                                                                | 0                                                                                   | 0                                                                                   | 2944                                                                                | 574                                                                                 |
| Grp Volume(v), veh/h         |                                                                                   |                                                                                   |                                                                                   | 315                                                                               | 0                                                                                 | 28                                                                                | 225                                                                                 | 425                                                                                 | 0                                                                                   | 0                                                                                   | 491                                                                                 | 488                                                                                 |
| Grp Sat Flow(s),veh/h/ln     |                                                                                   |                                                                                   |                                                                                   | 1725                                                                              | 0                                                                                 | 1535                                                                              | 1725                                                                                | 1721                                                                                | 0                                                                                   | 0                                                                                   | 1721                                                                                | 1708                                                                                |
| Q Serve(g_s), s              |                                                                                   |                                                                                   |                                                                                   | 24.1                                                                              | 0.0                                                                               | 2.0                                                                               | 6.3                                                                                 | 5.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 21.2                                                                                | 21.2                                                                                |
| Cycle Q Clear(g_c), s        |                                                                                   |                                                                                   |                                                                                   | 24.1                                                                              | 0.0                                                                               | 2.0                                                                               | 6.3                                                                                 | 5.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 21.2                                                                                | 21.2                                                                                |
| Prop In Lane                 |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.00                                                                                | 0.00                                                                                |                                                                                     | 0.34                                                                                |
| Lane Grp Cap(c), veh/h       |                                                                                   |                                                                                   |                                                                                   | 348                                                                               | 0                                                                                 | 310                                                                               | 419                                                                                 | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1046                                                                                | 1038                                                                                |
| V/C Ratio(X)                 |                                                                                   |                                                                                   |                                                                                   | 0.90                                                                              | 0.00                                                                              | 0.09                                                                              | 0.54                                                                                | 0.17                                                                                | 0.00                                                                                | 0.00                                                                                | 0.47                                                                                | 0.47                                                                                |
| Avail Cap(c_a), veh/h        |                                                                                   |                                                                                   |                                                                                   | 431                                                                               | 0                                                                                 | 383                                                                               | 941                                                                                 | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1046                                                                                | 1038                                                                                |
| HCM Platoon Ratio            |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.97                                                                                | 0.97                                                                                | 0.00                                                                                | 0.00                                                                                | 0.93                                                                                | 0.93                                                                                |
| Uniform Delay (d), s/veh     |                                                                                   |                                                                                   |                                                                                   | 52.6                                                                              | 0.0                                                                               | 43.8                                                                              | 10.8                                                                                | 6.3                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 14.5                                                                                | 14.5                                                                                |
| Incr Delay (d2), s/veh       |                                                                                   |                                                                                   |                                                                                   | 19.5                                                                              | 0.0                                                                               | 0.1                                                                               | 1.0                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 1.4                                                                                 | 1.4                                                                                 |
| Initial Q Delay(d3), s/veh   |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     |                                                                                   |                                                                                   |                                                                                   | 18.1                                                                              | 0.0                                                                               | 1.4                                                                               | 4.3                                                                                 | 3.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 13.2                                                                                | 13.1                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        |                                                                                   |                                                                                   |                                                                                   | 72.1                                                                              | 0.0                                                                               | 43.9                                                                              | 11.9                                                                                | 6.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 15.9                                                                                | 15.9                                                                                |
| LnGrp LOS                    |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | D                                                                                 | B                                                                                   | A                                                                                   |                                                                                     |                                                                                     | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 343                                                                               |                                                                                   |                                                                                     | 650                                                                                 |                                                                                     |                                                                                     | 979                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 69.8                                                                              |                                                                                   |                                                                                     | 8.4                                                                                 |                                                                                     |                                                                                     | 15.9                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 101.4                                                                             |                                                                                   |                                                                                   | 14.2                                                                              |                                                                                   | 87.3                                                                              | 33.6                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.2                                                                               |                                                                                   |                                                                                   | 5.2                                                                               |                                                                                   | 5.2                                                                               | 6.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 89.8                                                                              |                                                                                   |                                                                                   | 49.8                                                                              |                                                                                   | 34.8                                                                              | 33.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 7.5                                                                               |                                                                                   |                                                                                   | 8.3                                                                               |                                                                                   | 23.2                                                                              | 26.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 3.2                                                                               |                                                                                   |                                                                                   | 0.7                                                                               |                                                                                   | 5.0                                                                               | 1.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 22.8                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 25: Rock Blvd &amp; EB Ramps

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |  |  |  |  |  |
| Traffic Volume (veh/h)       | 139                                                                               | 0                                                                                 | 473                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 480                                                                                 | 104                                                                                 | 55                                                                                  | 1019                                                                                | 0                                                                                   |
| Future Volume (veh/h)        | 139                                                                               | 0                                                                                 | 473                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 480                                                                                 | 104                                                                                 | 55                                                                                  | 1019                                                                                | 0                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1811                                                                              | 1811                                                                              | 1811                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1811                                                                                | 1811                                                                                | 1811                                                                                | 1811                                                                                | 0                                                                                   |
| Adj Flow Rate, veh/h         | 146                                                                               | 0                                                                                 | 250                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 505                                                                                 | 54                                                                                  | 58                                                                                  | 1073                                                                                | 0                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.95                                                                               | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 6                                                                                 | 6                                                                                 | 6                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 6                                                                                   | 6                                                                                   | 6                                                                                   | 6                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 311                                                                               | 0                                                                                 | 277                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2176                                                                                | 971                                                                                 | 631                                                                                 | 2416                                                                                | 0                                                                                   |
| Arrive On Green              | 0.18                                                                              | 0.00                                                                              | 0.18                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 1.00                                                                                | 1.00                                                                                | 0.03                                                                                | 0.70                                                                                | 0.00                                                                                |
| Sat Flow, veh/h              | 1725                                                                              | 0                                                                                 | 1535                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 3532                                                                                | 1535                                                                                | 1725                                                                                | 3532                                                                                | 0                                                                                   |
| Grp Volume(v), veh/h         | 146                                                                               | 0                                                                                 | 250                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 505                                                                                 | 54                                                                                  | 58                                                                                  | 1073                                                                                | 0                                                                                   |
| Grp Sat Flow(s), veh/h/ln    | 1725                                                                              | 0                                                                                 | 1535                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1721                                                                                | 1535                                                                                | 1725                                                                                | 1721                                                                                | 0                                                                                   |
| Q Serve(g_s), s              | 10.2                                                                              | 0.0                                                                               | 21.5                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 1.5                                                                                 | 18.2                                                                                | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 10.2                                                                              | 0.0                                                                               | 21.5                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 1.5                                                                                 | 18.2                                                                                | 0.0                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 311                                                                               | 0                                                                                 | 277                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2176                                                                                | 971                                                                                 | 631                                                                                 | 2416                                                                                | 0                                                                                   |
| V/C Ratio(X)                 | 0.47                                                                              | 0.00                                                                              | 0.90                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.23                                                                                | 0.06                                                                                | 0.09                                                                                | 0.44                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 354                                                                               | 0                                                                                 | 315                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2176                                                                                | 971                                                                                 | 1085                                                                                | 2416                                                                                | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.97                                                                                | 0.97                                                                                | 0.79                                                                                | 0.79                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 49.6                                                                              | 0.0                                                                               | 54.2                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 7.2                                                                                 | 8.7                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 1.1                                                                               | 0.0                                                                               | 25.9                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.5                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.0                                                                               | 0.0                                                                               | 15.6                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.1                                                                                 | 0.1                                                                                 | 1.0                                                                                 | 10.4                                                                                | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 50.7                                                                              | 0.0                                                                               | 80.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.2                                                                                 | 0.1                                                                                 | 7.2                                                                                 | 9.2                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | D                                                                                 |                                                                                   | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |                                                                                     |
| Approach Vol, veh/h          | 396                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 559                                                                                |                                                                                     |                                                                                     | 1131                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 69.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.2                                                                                |                                                                                     |                                                                                     | 9.1                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | A                                                                                  |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.4                                                                               | 90.6                                                                              |                                                                                   | 31.6                                                                              |                                                                                   | 100.0                                                                             |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.0                                                                               | 5.2                                                                               |                                                                                   | 7.3                                                                               |                                                                                   | 5.2                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 40.0                                                                              | 49.8                                                                              |                                                                                   | 27.7                                                                              |                                                                                   | 94.8                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.5                                                                               | 2.0                                                                               |                                                                                   | 23.5                                                                              |                                                                                   | 20.2                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 4.1                                                                               |                                                                                   | 0.8                                                                               |                                                                                   | 10.8                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 18.1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 20: Rock Blvd &amp; WB Ramps

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |  |                                                                                     |                                                                                     |  |  |
| Traffic Volume (veh/h)       | 0                                                                                 | 0                                                                                 | 0                                                                                 | 120                                                                               | 0                                                                                 | 137                                                                               | 558                                                                                 | 1288                                                                                | 0                                                                                   | 0                                                                                   | 401                                                                                 | 298                                                                                 |
| Future Volume (veh/h)        | 0                                                                                 | 0                                                                                 | 0                                                                                 | 120                                                                               | 0                                                                                 | 137                                                                               | 558                                                                                 | 1288                                                                                | 0                                                                                   | 0                                                                                   | 401                                                                                 | 298                                                                                 |
| Initial Q (Qb), veh          |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       |                                                                                   |                                                                                   |                                                                                   | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 0                                                                                   | 0                                                                                   | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         |                                                                                   |                                                                                   |                                                                                   | 130                                                                               | 0                                                                                 | 72                                                                                | 607                                                                                 | 1400                                                                                | 0                                                                                   | 0                                                                                   | 436                                                                                 | 227                                                                                 |
| Peak Hour Factor             |                                                                                   |                                                                                   |                                                                                   | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %         |                                                                                   |                                                                                   |                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 0                                                                                   | 0                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   |                                                                                   |                                                                                   |                                                                                   | 161                                                                               | 0                                                                                 | 143                                                                               | 723                                                                                 | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1393                                                                                | 719                                                                                 |
| Arrive On Green              |                                                                                   |                                                                                   |                                                                                   | 0.09                                                                              | 0.00                                                                              | 0.09                                                                              | 0.37                                                                                | 1.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.20                                                                                | 0.20                                                                                |
| Sat Flow, veh/h              |                                                                                   |                                                                                   |                                                                                   | 1781                                                                              | 0                                                                                 | 1585                                                                              | 1781                                                                                | 3647                                                                                | 0                                                                                   | 0                                                                                   | 2360                                                                                | 1170                                                                                |
| Grp Volume(v), veh/h         |                                                                                   |                                                                                   |                                                                                   | 130                                                                               | 0                                                                                 | 72                                                                                | 607                                                                                 | 1400                                                                                | 0                                                                                   | 0                                                                                   | 341                                                                                 | 322                                                                                 |
| Grp Sat Flow(s),veh/h/ln     |                                                                                   |                                                                                   |                                                                                   | 1781                                                                              | 0                                                                                 | 1585                                                                              | 1781                                                                                | 1777                                                                                | 0                                                                                   | 0                                                                                   | 1777                                                                                | 1660                                                                                |
| Q Serve(g_s), s              |                                                                                   |                                                                                   |                                                                                   | 10.7                                                                              | 0.0                                                                               | 6.5                                                                               | 23.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 24.5                                                                                | 24.8                                                                                |
| Cycle Q Clear(g_c), s        |                                                                                   |                                                                                   |                                                                                   | 10.7                                                                              | 0.0                                                                               | 6.5                                                                               | 23.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 24.5                                                                                | 24.8                                                                                |
| Prop In Lane                 |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.00                                                                                | 0.00                                                                                |                                                                                     | 0.70                                                                                |
| Lane Grp Cap(c), veh/h       |                                                                                   |                                                                                   |                                                                                   | 161                                                                               | 0                                                                                 | 143                                                                               | 723                                                                                 | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1092                                                                                | 1020                                                                                |
| V/C Ratio(X)                 |                                                                                   |                                                                                   |                                                                                   | 0.81                                                                              | 0.00                                                                              | 0.50                                                                              | 0.84                                                                                | 0.47                                                                                | 0.00                                                                                | 0.00                                                                                | 0.31                                                                                | 0.32                                                                                |
| Avail Cap(c_a), veh/h        |                                                                                   |                                                                                   |                                                                                   | 341                                                                               | 0                                                                                 | 303                                                                               | 1224                                                                                | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1092                                                                                | 1020                                                                                |
| HCM Platoon Ratio            |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.33                                                                                | 0.33                                                                                |
| Upstream Filter(I)           |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.44                                                                                | 0.44                                                                                | 0.00                                                                                | 0.00                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh     |                                                                                   |                                                                                   |                                                                                   | 67.0                                                                              | 0.0                                                                               | 65.0                                                                              | 8.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 32.8                                                                                | 32.9                                                                                |
| Incr Delay (d2), s/veh       |                                                                                   |                                                                                   |                                                                                   | 9.2                                                                               | 0.0                                                                               | 2.7                                                                               | 1.2                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.7                                                                                 | 0.8                                                                                 |
| Initial Q Delay(d3), s/veh   |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     |                                                                                   |                                                                                   |                                                                                   | 9.1                                                                               | 0.0                                                                               | 5.0                                                                               | 8.3                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 17.6                                                                                | 16.8                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        |                                                                                   |                                                                                   |                                                                                   | 76.2                                                                              | 0.0                                                                               | 67.8                                                                              | 9.7                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 33.5                                                                                | 33.7                                                                                |
| LnGrp LOS                    |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 202                                                                               |                                                                                   |                                                                                     | 2007                                                                                |                                                                                     |                                                                                     | 663                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 73.2                                                                              |                                                                                   |                                                                                     | 3.1                                                                                 |                                                                                     |                                                                                     | 33.6                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 130.2                                                                             |                                                                                   |                                                                                   | 32.8                                                                              | 97.4                                                                              |                                                                                     | 19.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 5.2                                                                               |                                                                                   |                                                                                   | 5.2                                                                               | 5.2                                                                               |                                                                                     | 6.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 109.8                                                                             |                                                                                   |                                                                                   | 69.8                                                                              | 34.8                                                                              |                                                                                     | 28.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 2.0                                                                               |                                                                                   |                                                                                   | 25.4                                                                              | 26.8                                                                              |                                                                                     | 12.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 17.6                                                                              |                                                                                   |                                                                                   | 2.2                                                                               | 2.6                                                                               |                                                                                     | 0.8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 15.1                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 25: Rock Blvd &amp; EB Ramps

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 187                                                                               | 0                                                                                 | 229                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 1660                                                                                | 279                                                                                 | 67                                                                                  | 453                                                                                 | 0                                                                                   |
| Future Volume (veh/h)                                                                              | 187                                                                               | 0                                                                                 | 229                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 1660                                                                                | 279                                                                                 | 67                                                                                  | 453                                                                                 | 0                                                                                   |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1870                                                                              | 1870                                                                              | 1870                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 0                                                                                   |
| Adj Flow Rate, veh/h                                                                               | 203                                                                               | 0                                                                                 | 124                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1804                                                                                | 212                                                                                 | 73                                                                                  | 492                                                                                 | 0                                                                                   |
| Peak Hour Factor                                                                                   | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %                                                                               | 2                                                                                 | 2                                                                                 | 2                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 0                                                                                   |
| Cap, veh/h                                                                                         | 229                                                                               | 0                                                                                 | 204                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2127                                                                                | 949                                                                                 | 275                                                                                 | 2800                                                                                | 0                                                                                   |
| Arrive On Green                                                                                    | 0.13                                                                              | 0.00                                                                              | 0.13                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.60                                                                                | 0.60                                                                                | 0.15                                                                                | 0.79                                                                                | 0.00                                                                                |
| Sat Flow, veh/h                                                                                    | 1781                                                                              | 0                                                                                 | 1585                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 3647                                                                                | 1585                                                                                | 1781                                                                                | 3647                                                                                | 0                                                                                   |
| Grp Volume(v), veh/h                                                                               | 203                                                                               | 0                                                                                 | 124                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1804                                                                                | 212                                                                                 | 73                                                                                  | 492                                                                                 | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1781                                                                              | 0                                                                                 | 1585                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1777                                                                                | 1585                                                                                | 1781                                                                                | 1777                                                                                | 0                                                                                   |
| Q Serve(g_s), s                                                                                    | 16.8                                                                              | 0.0                                                                               | 11.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 62.1                                                                                | 9.3                                                                                 | 5.4                                                                                 | 5.1                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s                                                                              | 16.8                                                                              | 0.0                                                                               | 11.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 62.1                                                                                | 9.3                                                                                 | 5.4                                                                                 | 5.1                                                                                 | 0.0                                                                                 |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 229                                                                               | 0                                                                                 | 204                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2127                                                                                | 949                                                                                 | 275                                                                                 | 2800                                                                                | 0                                                                                   |
| V/C Ratio(X)                                                                                       | 0.89                                                                              | 0.00                                                                              | 0.61                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.85                                                                                | 0.22                                                                                | 0.27                                                                                | 0.18                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 270                                                                               | 0                                                                                 | 240                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2127                                                                                | 949                                                                                 | 275                                                                                 | 2800                                                                                | 0                                                                                   |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.56                                                                                | 0.56                                                                                | 0.86                                                                                | 0.86                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh                                                                           | 64.3                                                                              | 0.0                                                                               | 61.8                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 24.5                                                                                | 13.9                                                                                | 55.9                                                                                | 3.9                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 25.0                                                                              | 0.0                                                                               | 3.3                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 2.5                                                                                 | 0.3                                                                                 | 0.4                                                                                 | 0.1                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 14.2                                                                              | 0.0                                                                               | 8.2                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 32.4                                                                                | 5.7                                                                                 | 4.5                                                                                 | 3.1                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 89.3                                                                              | 0.0                                                                               | 65.0                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 27.1                                                                                | 14.3                                                                                | 56.3                                                                                | 4.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                                                                                          | F                                                                                 |                                                                                   | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    | C                                                                                   | B                                                                                   | E                                                                                   | A                                                                                   |                                                                                     |
| Approach Vol, veh/h                                                                                | 327                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 2016                                                                               |                                                                                     |                                                                                     | 565                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 80.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 25.7                                                                               |                                                                                     |                                                                                     | 10.8                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | C                                                                                  |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 28.4                                                                              | 95.0                                                                              |                                                                                   | 26.6                                                                              |                                                                                   | 123.4                                                                             |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.2                                                                               | * 5.2                                                                             |                                                                                   | 7.3                                                                               |                                                                                   | 5.2                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 20.0                                                                              | * 90                                                                              |                                                                                   | 22.7                                                                              |                                                                                   | 114.8                                                                             |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+l1), s                                                                       | 7.4                                                                               | 64.1                                                                              |                                                                                   | 18.8                                                                              |                                                                                   | 7.1                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.1                                                                               | 17.7                                                                              |                                                                                   | 0.5                                                                               |                                                                                   | 3.8                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 28.9                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 20: Rock Blvd &amp; WB Ramps

|                                                                      |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                  |                                                                                   |                                                                                   |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |                                                                                     |  |  |
| Traffic Volume (veh/h)                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 299                                                                               | 0                                                                                 | 52                                                                                | 214                                                                                 | 404                                                                                 | 0                                                                                   | 0                                                                                   | 774                                                                                 | 223                                                                                 |
| Future Volume (veh/h)                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 299                                                                               | 0                                                                                 | 52                                                                                | 214                                                                                 | 404                                                                                 | 0                                                                                   | 0                                                                                   | 774                                                                                 | 223                                                                                 |
| Initial Q (Qb), veh                                                  |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                      |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                  |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj                                                     |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                |                                                                                   |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln                                               |                                                                                   |                                                                                   |                                                                                   | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 0                                                                                   | 0                                                                                   | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                 |                                                                                   |                                                                                   |                                                                                   | 341                                                                               | 0                                                                                 | 0                                                                                 | 225                                                                                 | 425                                                                                 | 0                                                                                   | 0                                                                                   | 815                                                                                 | 164                                                                                 |
| Peak Hour Factor                                                     |                                                                                   |                                                                                   |                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %                                                 |                                                                                   |                                                                                   |                                                                                   | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                           |                                                                                   |                                                                                   |                                                                                   | 413                                                                               | 217                                                                               | 0                                                                                 | 521                                                                                 | 2736                                                                                | 0                                                                                   | 0                                                                                   | 2004                                                                                | 403                                                                                 |
| Arrive On Green                                                      |                                                                                   |                                                                                   |                                                                                   | 0.12                                                                              | 0.00                                                                              | 0.00                                                                              | 0.05                                                                                | 0.80                                                                                | 0.00                                                                                | 0.00                                                                                | 0.93                                                                                | 0.93                                                                                |
| Sat Flow, veh/h                                                      |                                                                                   |                                                                                   |                                                                                   | 3450                                                                              | 1811                                                                              | 0                                                                                 | 1725                                                                                | 3532                                                                                | 0                                                                                   | 0                                                                                   | 2944                                                                                | 574                                                                                 |
| Grp Volume(v), veh/h                                                 |                                                                                   |                                                                                   |                                                                                   | 341                                                                               | 0                                                                                 | 0                                                                                 | 225                                                                                 | 425                                                                                 | 0                                                                                   | 0                                                                                   | 491                                                                                 | 488                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                             |                                                                                   |                                                                                   |                                                                                   | 1725                                                                              | 1811                                                                              | 0                                                                                 | 1725                                                                                | 1721                                                                                | 0                                                                                   | 0                                                                                   | 1721                                                                                | 1708                                                                                |
| Q Serve(g_s), s                                                      |                                                                                   |                                                                                   |                                                                                   | 13.0                                                                              | 0.0                                                                               | 0.0                                                                               | 4.6                                                                                 | 3.9                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 4.1                                                                                 | 4.1                                                                                 |
| Cycle Q Clear(g_c), s                                                |                                                                                   |                                                                                   |                                                                                   | 13.0                                                                              | 0.0                                                                               | 0.0                                                                               | 4.6                                                                                 | 3.9                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 4.1                                                                                 | 4.1                                                                                 |
| Prop In Lane                                                         |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 0.00                                                                              | 1.00                                                                                |                                                                                     | 0.00                                                                                | 0.00                                                                                |                                                                                     | 0.34                                                                                |
| Lane Grp Cap(c), veh/h                                               |                                                                                   |                                                                                   |                                                                                   | 413                                                                               | 217                                                                               | 0                                                                                 | 521                                                                                 | 2736                                                                                | 0                                                                                   | 0                                                                                   | 1208                                                                                | 1199                                                                                |
| V/C Ratio(X)                                                         |                                                                                   |                                                                                   |                                                                                   | 0.83                                                                              | 0.00                                                                              | 0.00                                                                              | 0.43                                                                                | 0.16                                                                                | 0.00                                                                                | 0.00                                                                                | 0.41                                                                                | 0.41                                                                                |
| Avail Cap(c_a), veh/h                                                |                                                                                   |                                                                                   |                                                                                   | 861                                                                               | 452                                                                               | 0                                                                                 | 1064                                                                                | 2736                                                                                | 0                                                                                   | 0                                                                                   | 1208                                                                                | 1199                                                                                |
| HCM Platoon Ratio                                                    |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.33                                                                                | 1.33                                                                                |
| Upstream Filter(I)                                                   |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 0.97                                                                                | 0.97                                                                                | 0.00                                                                                | 0.00                                                                                | 0.93                                                                                | 0.93                                                                                |
| Uniform Delay (d), s/veh                                             |                                                                                   |                                                                                   |                                                                                   | 58.0                                                                              | 0.0                                                                               | 0.0                                                                               | 4.3                                                                                 | 3.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 1.5                                                                                 | 1.5                                                                                 |
| Incr Delay (d2), s/veh                                               |                                                                                   |                                                                                   |                                                                                   | 4.2                                                                               | 0.0                                                                               | 0.0                                                                               | 0.6                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 1.0                                                                                 |
| Initial Q Delay(d3), s/veh                                           |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                             |                                                                                   |                                                                                   |                                                                                   | 9.9                                                                               | 0.0                                                                               | 0.0                                                                               | 2.8                                                                                 | 2.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 2.3                                                                                 | 2.3                                                                                 |
| Unsig. Movement Delay, s/veh                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                |                                                                                   |                                                                                   |                                                                                   | 62.3                                                                              | 0.0                                                                               | 0.0                                                                               | 4.8                                                                                 | 3.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 2.4                                                                                 | 2.4                                                                                 |
| LnGrp LOS                                                            |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 341                                                                               |                                                                                   |                                                                                     | 650                                                                                 |                                                                                     |                                                                                     | 979                                                                                 |                                                                                     |
| Approach Delay, s/veh                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 62.3                                                                              |                                                                                   |                                                                                     | 3.9                                                                                 |                                                                                     |                                                                                     | 2.4                                                                                 |                                                                                     |
| Approach LOS                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |
| Timer - Assigned Phs                                                 | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                             | 112.5                                                                             |                                                                                   |                                                                                   | 12.5                                                                              |                                                                                   | 100.0                                                                             | 22.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                              | 5.2                                                                               |                                                                                   |                                                                                   | 5.2                                                                               |                                                                                   | 5.2                                                                               | 6.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                          | 89.8                                                                              |                                                                                   |                                                                                   | 49.8                                                                              |                                                                                   | 34.8                                                                              | 33.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s                                         | 5.9                                                                               |                                                                                   |                                                                                   | 6.6                                                                               |                                                                                   | 6.1                                                                               | 15.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                              | 3.2                                                                               |                                                                                   |                                                                                   | 0.7                                                                               |                                                                                   | 7.5                                                                               | 1.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                         |                                                                                   |                                                                                   |                                                                                   | 13.2                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                          |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| User approved volume balancing among the lanes for turning movement. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 25: Rock Blvd &amp; EB Ramps

|                              |  |  |  |  |  |  |  |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |   |  |  |   |                                                                                     |
| Traffic Volume (veh/h)       | 139                                                                               | 0                                                                                 | 473                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 480                                                                                                                                                                     | 104                                                                                 | 55                                                                                  | 1019                                                                                                                                                                    | 0                                                                                   |
| Future Volume (veh/h)        | 139                                                                               | 0                                                                                 | 473                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 480                                                                                                                                                                     | 104                                                                                 | 55                                                                                  | 1019                                                                                                                                                                    | 0                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | No                                                                                 |                                                                                                                                                                         |                                                                                     |                                                                                     | No                                                                                                                                                                      |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1811                                                                              | 1811                                                                              | 1811                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1811                                                                                                                                                                    | 1811                                                                                | 1811                                                                                | 1811                                                                                                                                                                    | 0                                                                                   |
| Adj Flow Rate, veh/h         | 146                                                                               | 0                                                                                 | 250                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 505                                                                                                                                                                     | 54                                                                                  | 58                                                                                  | 1073                                                                                                                                                                    | 0                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.95                                                                               | 0.95                                                                                                                                                                    | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                                                                                                    | 0.95                                                                                |
| Percent Heavy Veh, %         | 6                                                                                 | 6                                                                                 | 6                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 6                                                                                                                                                                       | 6                                                                                   | 6                                                                                   | 6                                                                                                                                                                       | 0                                                                                   |
| Cap, veh/h                   | 311                                                                               | 0                                                                                 | 277                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2176                                                                                                                                                                    | 971                                                                                 | 631                                                                                 | 2416                                                                                                                                                                    | 0                                                                                   |
| Arrive On Green              | 0.18                                                                              | 0.00                                                                              | 0.18                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                | 0.03                                                                                | 0.70                                                                                                                                                                    | 0.00                                                                                |
| Sat Flow, veh/h              | 1725                                                                              | 0                                                                                 | 1535                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 3532                                                                                                                                                                    | 1535                                                                                | 1725                                                                                | 3532                                                                                                                                                                    | 0                                                                                   |
| Grp Volume(v), veh/h         | 146                                                                               | 0                                                                                 | 250                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 505                                                                                                                                                                     | 54                                                                                  | 58                                                                                  | 1073                                                                                                                                                                    | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1725                                                                              | 0                                                                                 | 1535                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1721                                                                                                                                                                    | 1535                                                                                | 1725                                                                                | 1721                                                                                                                                                                    | 0                                                                                   |
| Q Serve(g_s), s              | 10.2                                                                              | 0.0                                                                               | 21.5                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                                                                                                     | 0.0                                                                                 | 1.5                                                                                 | 18.2                                                                                                                                                                    | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 10.2                                                                              | 0.0                                                                               | 21.5                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                                                                                                     | 0.0                                                                                 | 1.5                                                                                 | 18.2                                                                                                                                                                    | 0.0                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 311                                                                               | 0                                                                                 | 277                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2176                                                                                                                                                                    | 971                                                                                 | 631                                                                                 | 2416                                                                                                                                                                    | 0                                                                                   |
| V/C Ratio(X)                 | 0.47                                                                              | 0.00                                                                              | 0.90                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.23                                                                                                                                                                    | 0.06                                                                                | 0.09                                                                                | 0.44                                                                                                                                                                    | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 354                                                                               | 0                                                                                 | 315                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2176                                                                                                                                                                    | 971                                                                                 | 1085                                                                                | 2416                                                                                                                                                                    | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 2.00                                                                                                                                                                    | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.97                                                                                                                                                                    | 0.97                                                                                | 0.82                                                                                | 0.82                                                                                                                                                                    | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 49.6                                                                              | 0.0                                                                               | 54.2                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                                                                                                     | 0.0                                                                                 | 7.2                                                                                 | 8.7                                                                                                                                                                     | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 1.1                                                                               | 0.0                                                                               | 25.9                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.2                                                                                                                                                                     | 0.1                                                                                 | 0.1                                                                                 | 0.5                                                                                                                                                                     | 0.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.0                                                                               | 0.0                                                                               | 15.6                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.1                                                                                                                                                                     | 0.1                                                                                 | 1.0                                                                                 | 10.4                                                                                                                                                                    | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d), s/veh        | 50.7                                                                              | 0.0                                                                               | 80.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.2                                                                                                                                                                     | 0.1                                                                                 | 7.2                                                                                 | 9.2                                                                                                                                                                     | 0.0                                                                                 |
| LnGrp LOS                    | D                                                                                 |                                                                                   | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    | A                                                                                                                                                                       | A                                                                                   | A                                                                                   | A                                                                                                                                                                       |                                                                                     |
| Approach Vol, veh/h          | 396                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 559                                                                                |                                                                                                                                                                         |                                                                                     | 1131                                                                                |                                                                                                                                                                         |                                                                                     |
| Approach Delay, s/veh        | 69.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.2                                                                                |                                                                                                                                                                         |                                                                                     | 9.1                                                                                 |                                                                                                                                                                         |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | A                                                                                  |                                                                                                                                                                         |                                                                                     | A                                                                                   |                                                                                                                                                                         |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 6                                                                                  |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.4                                                                               | 90.6                                                                              |                                                                                   | 31.6                                                                              |                                                                                   |                                                                                   | 100.0                                                                              |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 5.0                                                                               | 5.2                                                                               |                                                                                   | 7.3                                                                               |                                                                                   |                                                                                   | 5.2                                                                                |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 40.0                                                                              | 49.8                                                                              |                                                                                   | 27.7                                                                              |                                                                                   |                                                                                   | 94.8                                                                               |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.5                                                                               | 2.0                                                                               |                                                                                   | 23.5                                                                              |                                                                                   |                                                                                   | 20.2                                                                               |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 4.1                                                                               |                                                                                   | 0.8                                                                               |                                                                                   |                                                                                   | 10.8                                                                               |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 18.1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 20: Rock Blvd &amp; WB Ramps

|                                                                      |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                             | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                  |                                                                                   |                                                                                   |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |                                                                                     |  |  |
| Traffic Volume (veh/h)                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 120                                                                               | 0                                                                                 | 137                                                                               | 558                                                                                 | 1288                                                                                | 0                                                                                   | 0                                                                                   | 401                                                                                 | 298                                                                                 |
| Future Volume (veh/h)                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 120                                                                               | 0                                                                                 | 137                                                                               | 558                                                                                 | 1288                                                                                | 0                                                                                   | 0                                                                                   | 401                                                                                 | 298                                                                                 |
| Initial Q (Qb), veh                                                  |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                      |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                  |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj                                                     |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                |                                                                                   |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln                                               |                                                                                   |                                                                                   |                                                                                   | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 0                                                                                   | 0                                                                                   | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h                                                 |                                                                                   |                                                                                   |                                                                                   | 101                                                                               | 41                                                                                | 72                                                                                | 607                                                                                 | 1400                                                                                | 0                                                                                   | 0                                                                                   | 436                                                                                 | 227                                                                                 |
| Peak Hour Factor                                                     |                                                                                   |                                                                                   |                                                                                   | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %                                                 |                                                                                   |                                                                                   |                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 0                                                                                   | 0                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                                                           |                                                                                   |                                                                                   |                                                                                   | 151                                                                               | 52                                                                                | 91                                                                                | 724                                                                                 | 2980                                                                                | 0                                                                                   | 0                                                                                   | 1413                                                                                | 729                                                                                 |
| Arrive On Green                                                      |                                                                                   |                                                                                   |                                                                                   | 0.08                                                                              | 0.08                                                                              | 0.08                                                                              | 0.36                                                                                | 1.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.21                                                                                | 0.21                                                                                |
| Sat Flow, veh/h                                                      |                                                                                   |                                                                                   |                                                                                   | 1781                                                                              | 609                                                                               | 1069                                                                              | 1781                                                                                | 3647                                                                                | 0                                                                                   | 0                                                                                   | 2360                                                                                | 1170                                                                                |
| Grp Volume(v), veh/h                                                 |                                                                                   |                                                                                   |                                                                                   | 101                                                                               | 0                                                                                 | 113                                                                               | 607                                                                                 | 1400                                                                                | 0                                                                                   | 0                                                                                   | 341                                                                                 | 322                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                             |                                                                                   |                                                                                   |                                                                                   | 1781                                                                              | 0                                                                                 | 1678                                                                              | 1781                                                                                | 1777                                                                                | 0                                                                                   | 0                                                                                   | 1777                                                                                | 1660                                                                                |
| Q Serve(g_s), s                                                      |                                                                                   |                                                                                   |                                                                                   | 8.3                                                                               | 0.0                                                                               | 9.9                                                                               | 22.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 24.4                                                                                | 24.7                                                                                |
| Cycle Q Clear(g_c), s                                                |                                                                                   |                                                                                   |                                                                                   | 8.3                                                                               | 0.0                                                                               | 9.9                                                                               | 22.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 24.4                                                                                | 24.7                                                                                |
| Prop In Lane                                                         |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 0.64                                                                              | 1.00                                                                                |                                                                                     | 0.00                                                                                | 0.00                                                                                |                                                                                     | 0.70                                                                                |
| Lane Grp Cap(c), veh/h                                               |                                                                                   |                                                                                   |                                                                                   | 151                                                                               | 0                                                                                 | 142                                                                               | 724                                                                                 | 2980                                                                                | 0                                                                                   | 0                                                                                   | 1108                                                                                | 1035                                                                                |
| V/C Ratio(X)                                                         |                                                                                   |                                                                                   |                                                                                   | 0.67                                                                              | 0.00                                                                              | 0.79                                                                              | 0.84                                                                                | 0.47                                                                                | 0.00                                                                                | 0.00                                                                                | 0.31                                                                                | 0.31                                                                                |
| Avail Cap(c_a), veh/h                                                |                                                                                   |                                                                                   |                                                                                   | 341                                                                               | 0                                                                                 | 321                                                                               | 1231                                                                                | 2980                                                                                | 0                                                                                   | 0                                                                                   | 1108                                                                                | 1035                                                                                |
| HCM Platoon Ratio                                                    |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.33                                                                                | 0.33                                                                                |
| Upstream Filter(I)                                                   |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.44                                                                                | 0.44                                                                                | 0.00                                                                                | 0.00                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh                                             |                                                                                   |                                                                                   |                                                                                   | 66.6                                                                              | 0.0                                                                               | 67.4                                                                              | 8.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 32.1                                                                                | 32.2                                                                                |
| Incr Delay (d2), s/veh                                               |                                                                                   |                                                                                   |                                                                                   | 5.0                                                                               | 0.0                                                                               | 9.6                                                                               | 1.2                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.7                                                                                 | 0.8                                                                                 |
| Initial Q Delay(d3), s/veh                                           |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                             |                                                                                   |                                                                                   |                                                                                   | 7.2                                                                               | 0.0                                                                               | 8.2                                                                               | 8.4                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 17.5                                                                                | 16.7                                                                                |
| Unsig. Movement Delay, s/veh                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                |                                                                                   |                                                                                   |                                                                                   | 71.6                                                                              | 0.0                                                                               | 77.0                                                                              | 9.6                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 32.8                                                                                | 33.0                                                                                |
| LnGrp LOS                                                            |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 214                                                                               |                                                                                   |                                                                                     | 2007                                                                                |                                                                                     |                                                                                     | 663                                                                                 |                                                                                     |
| Approach Delay, s/veh                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 74.4                                                                              |                                                                                   |                                                                                     | 3.1                                                                                 |                                                                                     |                                                                                     | 32.9                                                                                |                                                                                     |
| Approach LOS                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Timer - Assigned Phs                                                 |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                             |                                                                                   | 131.0                                                                             |                                                                                   |                                                                                   | 32.3                                                                              | 98.7                                                                              |                                                                                     | 19.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                              |                                                                                   | 5.2                                                                               |                                                                                   |                                                                                   | 5.2                                                                               | 5.2                                                                               |                                                                                     | 6.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                          |                                                                                   | 109.8                                                                             |                                                                                   |                                                                                   | 69.8                                                                              | 34.8                                                                              |                                                                                     | 28.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s                                         |                                                                                   | 2.0                                                                               |                                                                                   |                                                                                   | 24.9                                                                              | 26.7                                                                              |                                                                                     | 11.9                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                              |                                                                                   | 17.6                                                                              |                                                                                   |                                                                                   | 2.2                                                                               | 2.6                                                                               |                                                                                     | 0.8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                         |                                                                                   |                                                                                   |                                                                                   | 15.2                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                          |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Notes</b>                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| User approved volume balancing among the lanes for turning movement. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 25: Rock Blvd &amp; EB Ramps

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |  |  |  |  |  |
| Traffic Volume (veh/h)       | 187                                                                               | 0                                                                                 | 229                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 1660                                                                                | 279                                                                                 | 67                                                                                  | 453                                                                                 | 0                                                                                   |
| Future Volume (veh/h)        | 187                                                                               | 0                                                                                 | 229                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 1660                                                                                | 279                                                                                 | 67                                                                                  | 453                                                                                 | 0                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 0                                                                                   |
| Adj Flow Rate, veh/h         | 203                                                                               | 0                                                                                 | 124                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1804                                                                                | 212                                                                                 | 73                                                                                  | 492                                                                                 | 0                                                                                   |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 229                                                                               | 0                                                                                 | 204                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2127                                                                                | 949                                                                                 | 275                                                                                 | 2800                                                                                | 0                                                                                   |
| Arrive On Green              | 0.13                                                                              | 0.00                                                                              | 0.13                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.60                                                                                | 0.60                                                                                | 0.15                                                                                | 0.79                                                                                | 0.00                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 0                                                                                 | 1585                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 3647                                                                                | 1585                                                                                | 1781                                                                                | 3647                                                                                | 0                                                                                   |
| Grp Volume(v), veh/h         | 203                                                                               | 0                                                                                 | 124                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1804                                                                                | 212                                                                                 | 73                                                                                  | 492                                                                                 | 0                                                                                   |
| Grp Sat Flow(s), veh/h/ln    | 1781                                                                              | 0                                                                                 | 1585                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1777                                                                                | 1585                                                                                | 1781                                                                                | 1777                                                                                | 0                                                                                   |
| Q Serve(g_s), s              | 16.8                                                                              | 0.0                                                                               | 11.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 62.1                                                                                | 9.3                                                                                 | 5.4                                                                                 | 5.1                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 16.8                                                                              | 0.0                                                                               | 11.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 62.1                                                                                | 9.3                                                                                 | 5.4                                                                                 | 5.1                                                                                 | 0.0                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 229                                                                               | 0                                                                                 | 204                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2127                                                                                | 949                                                                                 | 275                                                                                 | 2800                                                                                | 0                                                                                   |
| V/C Ratio(X)                 | 0.89                                                                              | 0.00                                                                              | 0.61                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.85                                                                                | 0.22                                                                                | 0.27                                                                                | 0.18                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 270                                                                               | 0                                                                                 | 240                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2127                                                                                | 949                                                                                 | 275                                                                                 | 2800                                                                                | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.56                                                                                | 0.56                                                                                | 0.85                                                                                | 0.85                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 64.3                                                                              | 0.0                                                                               | 61.8                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 24.5                                                                                | 13.9                                                                                | 55.9                                                                                | 3.9                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 25.0                                                                              | 0.0                                                                               | 3.3                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 2.5                                                                                 | 0.3                                                                                 | 0.4                                                                                 | 0.1                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 14.2                                                                              | 0.0                                                                               | 8.2                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 32.4                                                                                | 5.7                                                                                 | 4.5                                                                                 | 3.1                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 89.3                                                                              | 0.0                                                                               | 65.0                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 27.1                                                                                | 14.3                                                                                | 56.3                                                                                | 4.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | F                                                                                 |                                                                                   | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    | C                                                                                   | B                                                                                   | E                                                                                   | A                                                                                   |                                                                                     |
| Approach Vol, veh/h          | 327                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 2016                                                                               |                                                                                     |                                                                                     | 565                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 80.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 25.7                                                                               |                                                                                     |                                                                                     | 10.8                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | C                                                                                  |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 28.4                                                                              | 95.0                                                                              |                                                                                   | 26.6                                                                              |                                                                                   | 123.4                                                                             |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.2                                                                               | * 5.2                                                                             |                                                                                   | 7.3                                                                               |                                                                                   | 5.2                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 20.0                                                                              | * 90                                                                              |                                                                                   | 22.7                                                                              |                                                                                   | 114.8                                                                             |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 7.4                                                                               | 64.1                                                                              |                                                                                   | 18.8                                                                              |                                                                                   | 7.1                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 17.7                                                                              |                                                                                   | 0.5                                                                               |                                                                                   | 3.8                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## Intersection Summary

HCM 7th Control Delay, s/veh 28.9

HCM 7th LOS C

## Notes

\* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

## HCM 7th Signalized Intersection Summary

## 20: Rock Blvd &amp; WB Ramps

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |  |                                                                                     |                                                                                     |  |  |
| Traffic Volume (veh/h)       | 0                                                                                 | 0                                                                                 | 0                                                                                 | 299                                                                               | 0                                                                                 | 52                                                                                | 214                                                                                 | 404                                                                                 | 0                                                                                   | 0                                                                                   | 719                                                                                 | 223                                                                                 |
| Future Volume (veh/h)        | 0                                                                                 | 0                                                                                 | 0                                                                                 | 299                                                                               | 0                                                                                 | 52                                                                                | 214                                                                                 | 404                                                                                 | 0                                                                                   | 0                                                                                   | 719                                                                                 | 223                                                                                 |
| Initial Q (Qb), veh          |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       |                                                                                   |                                                                                   |                                                                                   | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 0                                                                                   | 0                                                                                   | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h         |                                                                                   |                                                                                   |                                                                                   | 315                                                                               | 0                                                                                 | 28                                                                                | 225                                                                                 | 425                                                                                 | 0                                                                                   | 0                                                                                   | 757                                                                                 | 164                                                                                 |
| Peak Hour Factor             |                                                                                   |                                                                                   |                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         |                                                                                   |                                                                                   |                                                                                   | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                   |                                                                                   |                                                                                   |                                                                                   | 348                                                                               | 0                                                                                 | 310                                                                               | 440                                                                                 | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1710                                                                                | 370                                                                                 |
| Arrive On Green              |                                                                                   |                                                                                   |                                                                                   | 0.20                                                                              | 0.00                                                                              | 0.20                                                                              | 0.07                                                                                | 0.71                                                                                | 0.00                                                                                | 0.00                                                                                | 0.61                                                                                | 0.61                                                                                |
| Sat Flow, veh/h              |                                                                                   |                                                                                   |                                                                                   | 1725                                                                              | 0                                                                                 | 1535                                                                              | 1725                                                                                | 3532                                                                                | 0                                                                                   | 0                                                                                   | 2903                                                                                | 609                                                                                 |
| Grp Volume(v), veh/h         |                                                                                   |                                                                                   |                                                                                   | 315                                                                               | 0                                                                                 | 28                                                                                | 225                                                                                 | 425                                                                                 | 0                                                                                   | 0                                                                                   | 463                                                                                 | 458                                                                                 |
| Grp Sat Flow(s),veh/h/ln     |                                                                                   |                                                                                   |                                                                                   | 1725                                                                              | 0                                                                                 | 1535                                                                              | 1725                                                                                | 1721                                                                                | 0                                                                                   | 0                                                                                   | 1721                                                                                | 1701                                                                                |
| Q Serve(g_s), s              |                                                                                   |                                                                                   |                                                                                   | 24.1                                                                              | 0.0                                                                               | 2.0                                                                               | 6.3                                                                                 | 5.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 19.5                                                                                | 19.5                                                                                |
| Cycle Q Clear(g_c), s        |                                                                                   |                                                                                   |                                                                                   | 24.1                                                                              | 0.0                                                                               | 2.0                                                                               | 6.3                                                                                 | 5.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 19.5                                                                                | 19.5                                                                                |
| Prop In Lane                 |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.00                                                                                | 0.00                                                                                |                                                                                     | 0.36                                                                                |
| Lane Grp Cap(c), veh/h       |                                                                                   |                                                                                   |                                                                                   | 348                                                                               | 0                                                                                 | 310                                                                               | 440                                                                                 | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1046                                                                                | 1034                                                                                |
| V/C Ratio(X)                 |                                                                                   |                                                                                   |                                                                                   | 0.90                                                                              | 0.00                                                                              | 0.09                                                                              | 0.51                                                                                | 0.17                                                                                | 0.00                                                                                | 0.00                                                                                | 0.44                                                                                | 0.44                                                                                |
| Avail Cap(c_a), veh/h        |                                                                                   |                                                                                   |                                                                                   | 431                                                                               | 0                                                                                 | 383                                                                               | 962                                                                                 | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1046                                                                                | 1034                                                                                |
| HCM Platoon Ratio            |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.98                                                                                | 0.98                                                                                | 0.00                                                                                | 0.00                                                                                | 0.93                                                                                | 0.93                                                                                |
| Uniform Delay (d), s/veh     |                                                                                   |                                                                                   |                                                                                   | 52.6                                                                              | 0.0                                                                               | 43.8                                                                              | 10.3                                                                                | 6.3                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 14.2                                                                                | 14.2                                                                                |
| Incr Delay (d2), s/veh       |                                                                                   |                                                                                   |                                                                                   | 19.5                                                                              | 0.0                                                                               | 0.1                                                                               | 0.9                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 1.3                                                                                 | 1.3                                                                                 |
| Initial Q Delay(d3), s/veh   |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     |                                                                                   |                                                                                   |                                                                                   | 18.1                                                                              | 0.0                                                                               | 1.4                                                                               | 4.3                                                                                 | 3.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 12.3                                                                                | 12.2                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        |                                                                                   |                                                                                   |                                                                                   | 72.1                                                                              | 0.0                                                                               | 43.9                                                                              | 11.2                                                                                | 6.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 15.5                                                                                | 15.5                                                                                |
| LnGrp LOS                    |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | D                                                                                 | B                                                                                   | A                                                                                   |                                                                                     |                                                                                     | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 343                                                                               |                                                                                   |                                                                                     | 650                                                                                 |                                                                                     |                                                                                     | 921                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 69.8                                                                              |                                                                                   |                                                                                     | 8.1                                                                                 |                                                                                     |                                                                                     | 15.5                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 101.4                                                                             |                                                                                   |                                                                                   | 14.2                                                                              |                                                                                   | 87.3                                                                              | 33.6                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.2                                                                               |                                                                                   |                                                                                   | 5.2                                                                               |                                                                                   | 5.2                                                                               | 6.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 89.8                                                                              |                                                                                   |                                                                                   | 49.8                                                                              |                                                                                   | 34.8                                                                              | 33.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 7.5                                                                               |                                                                                   |                                                                                   | 8.3                                                                               |                                                                                   | 21.5                                                                              | 26.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 3.2                                                                               |                                                                                   |                                                                                   | 0.7                                                                               |                                                                                   | 5.1                                                                               | 1.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 22.7                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 25: Rock Blvd &amp; EB Ramps

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |  |  |                                                                                     |  |  |
| Traffic Volume (veh/h)       | 139                                                                               | 0                                                                                 | 473                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 480                                                                                 | 104                                                                                 | 0                                                                                   | 1019                                                                                | 0                                                                                   |
| Future Volume (veh/h)        | 139                                                                               | 0                                                                                 | 473                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 480                                                                                 | 104                                                                                 | 0                                                                                   | 1019                                                                                | 0                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1811                                                                              | 1811                                                                              | 1811                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1811                                                                                | 1811                                                                                | 0                                                                                   | 1811                                                                                | 0                                                                                   |
| Adj Flow Rate, veh/h         | 146                                                                               | 0                                                                                 | 250                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 505                                                                                 | 54                                                                                  | 0                                                                                   | 1073                                                                                | 0                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.95                                                                               | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 6                                                                                 | 6                                                                                 | 6                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 6                                                                                   | 6                                                                                   | 0                                                                                   | 6                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 311                                                                               | 0                                                                                 | 277                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2416                                                                                | 1078                                                                                | 0                                                                                   | 2416                                                                                | 0                                                                                   |
| Arrive On Green              | 0.18                                                                              | 0.00                                                                              | 0.18                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 1.00                                                                                | 1.00                                                                                | 0.00                                                                                | 0.70                                                                                | 0.00                                                                                |
| Sat Flow, veh/h              | 1725                                                                              | 0                                                                                 | 1535                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 3532                                                                                | 1535                                                                                | 0                                                                                   | 3622                                                                                | 0                                                                                   |
| Grp Volume(v), veh/h         | 146                                                                               | 0                                                                                 | 250                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 505                                                                                 | 54                                                                                  | 0                                                                                   | 1073                                                                                | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1725                                                                              | 0                                                                                 | 1535                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1721                                                                                | 1535                                                                                | 0                                                                                   | 1721                                                                                | 0                                                                                   |
| Q Serve(g_s), s              | 10.2                                                                              | 0.0                                                                               | 21.5                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 18.2                                                                                | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 10.2                                                                              | 0.0                                                                               | 21.5                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 18.2                                                                                | 0.0                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               |                                                                                     | 1.00                                                                                | 0.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 311                                                                               | 0                                                                                 | 277                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2416                                                                                | 1078                                                                                | 0                                                                                   | 2416                                                                                | 0                                                                                   |
| V/C Ratio(X)                 | 0.47                                                                              | 0.00                                                                              | 0.90                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.21                                                                                | 0.05                                                                                | 0.00                                                                                | 0.44                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 354                                                                               | 0                                                                                 | 315                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2416                                                                                | 1078                                                                                | 0                                                                                   | 2416                                                                                | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.97                                                                                | 0.97                                                                                | 0.00                                                                                | 0.82                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 49.6                                                                              | 0.0                                                                               | 54.2                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 8.7                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 1.1                                                                               | 0.0                                                                               | 25.9                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.5                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.0                                                                               | 0.0                                                                               | 15.6                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.1                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 10.4                                                                                | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 50.7                                                                              | 0.0                                                                               | 80.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 9.2                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | D                                                                                 |                                                                                   | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    | A                                                                                   | A                                                                                   |                                                                                     | A                                                                                   |                                                                                     |
| Approach Vol, veh/h          | 396                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 559                                                                                |                                                                                     |                                                                                     | 1073                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 69.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.2                                                                                |                                                                                     |                                                                                     | 9.2                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | A                                                                                  |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 6                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 100.0                                                                             |                                                                                   |                                                                                   | 31.6                                                                              |                                                                                   |                                                                                   | 100.0                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.2                                                                               |                                                                                   |                                                                                   | 7.3                                                                               |                                                                                   |                                                                                   | 5.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 94.8                                                                              |                                                                                   |                                                                                   | 27.7                                                                              |                                                                                   |                                                                                   | 94.8                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.0                                                                               |                                                                                   |                                                                                   | 23.5                                                                              |                                                                                   |                                                                                   | 20.2                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 4.1                                                                               |                                                                                   |                                                                                   | 0.8                                                                               |                                                                                   |                                                                                   | 10.8                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 18.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 20: Rock Blvd &amp; WB Ramps

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |  |                                                                                     |                                                                                     |  |  |
| Traffic Volume (veh/h)       | 0                                                                                 | 0                                                                                 | 0                                                                                 | 120                                                                               | 0                                                                                 | 137                                                                               | 558                                                                                 | 1288                                                                                | 0                                                                                   | 0                                                                                   | 401                                                                                 | 298                                                                                 |
| Future Volume (veh/h)        | 0                                                                                 | 0                                                                                 | 0                                                                                 | 120                                                                               | 0                                                                                 | 137                                                                               | 558                                                                                 | 1288                                                                                | 0                                                                                   | 0                                                                                   | 401                                                                                 | 298                                                                                 |
| Initial Q (Qb), veh          |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       |                                                                                   |                                                                                   |                                                                                   | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 0                                                                                   | 0                                                                                   | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         |                                                                                   |                                                                                   |                                                                                   | 130                                                                               | 0                                                                                 | 72                                                                                | 607                                                                                 | 1400                                                                                | 0                                                                                   | 0                                                                                   | 436                                                                                 | 227                                                                                 |
| Peak Hour Factor             |                                                                                   |                                                                                   |                                                                                   | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %         |                                                                                   |                                                                                   |                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 0                                                                                   | 0                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   |                                                                                   |                                                                                   |                                                                                   | 161                                                                               | 0                                                                                 | 143                                                                               | 723                                                                                 | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1393                                                                                | 719                                                                                 |
| Arrive On Green              |                                                                                   |                                                                                   |                                                                                   | 0.09                                                                              | 0.00                                                                              | 0.09                                                                              | 0.37                                                                                | 1.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.20                                                                                | 0.20                                                                                |
| Sat Flow, veh/h              |                                                                                   |                                                                                   |                                                                                   | 1781                                                                              | 0                                                                                 | 1585                                                                              | 1781                                                                                | 3647                                                                                | 0                                                                                   | 0                                                                                   | 2360                                                                                | 1170                                                                                |
| Grp Volume(v), veh/h         |                                                                                   |                                                                                   |                                                                                   | 130                                                                               | 0                                                                                 | 72                                                                                | 607                                                                                 | 1400                                                                                | 0                                                                                   | 0                                                                                   | 341                                                                                 | 322                                                                                 |
| Grp Sat Flow(s),veh/h/ln     |                                                                                   |                                                                                   |                                                                                   | 1781                                                                              | 0                                                                                 | 1585                                                                              | 1781                                                                                | 1777                                                                                | 0                                                                                   | 0                                                                                   | 1777                                                                                | 1660                                                                                |
| Q Serve(g_s), s              |                                                                                   |                                                                                   |                                                                                   | 10.7                                                                              | 0.0                                                                               | 6.5                                                                               | 23.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 24.5                                                                                | 24.8                                                                                |
| Cycle Q Clear(g_c), s        |                                                                                   |                                                                                   |                                                                                   | 10.7                                                                              | 0.0                                                                               | 6.5                                                                               | 23.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 24.5                                                                                | 24.8                                                                                |
| Prop In Lane                 |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.00                                                                                | 0.00                                                                                |                                                                                     | 0.70                                                                                |
| Lane Grp Cap(c), veh/h       |                                                                                   |                                                                                   |                                                                                   | 161                                                                               | 0                                                                                 | 143                                                                               | 723                                                                                 | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1092                                                                                | 1020                                                                                |
| V/C Ratio(X)                 |                                                                                   |                                                                                   |                                                                                   | 0.81                                                                              | 0.00                                                                              | 0.50                                                                              | 0.84                                                                                | 0.47                                                                                | 0.00                                                                                | 0.00                                                                                | 0.31                                                                                | 0.32                                                                                |
| Avail Cap(c_a), veh/h        |                                                                                   |                                                                                   |                                                                                   | 341                                                                               | 0                                                                                 | 303                                                                               | 1224                                                                                | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1092                                                                                | 1020                                                                                |
| HCM Platoon Ratio            |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.33                                                                                | 0.33                                                                                |
| Upstream Filter(I)           |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.69                                                                                | 0.69                                                                                | 0.00                                                                                | 0.00                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh     |                                                                                   |                                                                                   |                                                                                   | 67.0                                                                              | 0.0                                                                               | 65.0                                                                              | 8.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 32.8                                                                                | 32.9                                                                                |
| Incr Delay (d2), s/veh       |                                                                                   |                                                                                   |                                                                                   | 9.2                                                                               | 0.0                                                                               | 2.7                                                                               | 1.9                                                                                 | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.7                                                                                 | 0.8                                                                                 |
| Initial Q Delay(d3), s/veh   |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     |                                                                                   |                                                                                   |                                                                                   | 9.1                                                                               | 0.0                                                                               | 5.0                                                                               | 9.1                                                                                 | 0.3                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 17.6                                                                                | 16.8                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        |                                                                                   |                                                                                   |                                                                                   | 76.2                                                                              | 0.0                                                                               | 67.8                                                                              | 10.4                                                                                | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 33.5                                                                                | 33.7                                                                                |
| LnGrp LOS                    |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | B                                                                                   | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 202                                                                               |                                                                                   |                                                                                     | 2007                                                                                |                                                                                     |                                                                                     | 663                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 73.2                                                                              |                                                                                   |                                                                                     | 3.4                                                                                 |                                                                                     |                                                                                     | 33.6                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 130.2                                                                             |                                                                                   |                                                                                   | 32.8                                                                              | 97.4                                                                              |                                                                                     | 19.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 5.2                                                                               |                                                                                   |                                                                                   | 5.2                                                                               | 5.2                                                                               |                                                                                     | 6.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 109.8                                                                             |                                                                                   |                                                                                   | 69.8                                                                              | 34.8                                                                              |                                                                                     | 28.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 2.0                                                                               |                                                                                   |                                                                                   | 25.4                                                                              | 26.8                                                                              |                                                                                     | 12.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 17.6                                                                              |                                                                                   |                                                                                   | 2.2                                                                               | 2.6                                                                               |                                                                                     | 0.8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 15.3                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 25: Rock Blvd &amp; EB Ramps

|                              |  |  |  |  |  |  |  |                                                                                      |  |  |                                                                                      |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |   |  |                                                                                     |   |                                                                                     |
| Traffic Volume (veh/h)       | 187                                                                               | 0                                                                                 | 229                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 1660                                                                                                                                                                    | 279                                                                                 | 0                                                                                   | 453                                                                                                                                                                     | 0                                                                                   |
| Future Volume (veh/h)        | 187                                                                               | 0                                                                                 | 229                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 1660                                                                                                                                                                    | 279                                                                                 | 0                                                                                   | 453                                                                                                                                                                     | 0                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 0                                                                                                                                                                       | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                       | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               |                                                                                                                                                                         | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                         | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | No                                                                                 |                                                                                                                                                                         |                                                                                     | No                                                                                  |                                                                                                                                                                         |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1870                                                                                                                                                                    | 1870                                                                                | 0                                                                                   | 1870                                                                                                                                                                    | 0                                                                                   |
| Adj Flow Rate, veh/h         | 203                                                                               | 0                                                                                 | 124                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1804                                                                                                                                                                    | 212                                                                                 | 0                                                                                   | 492                                                                                                                                                                     | 0                                                                                   |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.92                                                                               | 0.92                                                                                                                                                                    | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                                                                                                    | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2                                                                                                                                                                       | 2                                                                                   | 0                                                                                   | 2                                                                                                                                                                       | 0                                                                                   |
| Cap, veh/h                   | 229                                                                               | 0                                                                                 | 204                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2800                                                                                                                                                                    | 1249                                                                                | 0                                                                                   | 2800                                                                                                                                                                    | 0                                                                                   |
| Arrive On Green              | 0.13                                                                              | 0.00                                                                              | 0.13                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.79                                                                                                                                                                    | 0.79                                                                                | 0.00                                                                                | 0.79                                                                                                                                                                    | 0.00                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 0                                                                                 | 1585                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 3647                                                                                                                                                                    | 1585                                                                                | 0                                                                                   | 3741                                                                                                                                                                    | 0                                                                                   |
| Grp Volume(v), veh/h         | 203                                                                               | 0                                                                                 | 124                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1804                                                                                                                                                                    | 212                                                                                 | 0                                                                                   | 492                                                                                                                                                                     | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 0                                                                                 | 1585                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1777                                                                                                                                                                    | 1585                                                                                | 0                                                                                   | 1777                                                                                                                                                                    | 0                                                                                   |
| Q Serve(g_s), s              | 16.8                                                                              | 0.0                                                                               | 11.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 32.8                                                                                                                                                                    | 4.9                                                                                 | 0.0                                                                                 | 5.1                                                                                                                                                                     | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 16.8                                                                              | 0.0                                                                               | 11.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 32.8                                                                                                                                                                    | 4.9                                                                                 | 0.0                                                                                 | 5.1                                                                                                                                                                     | 0.0                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               |                                                                                                                                                                         | 1.00                                                                                | 0.00                                                                                |                                                                                                                                                                         | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 229                                                                               | 0                                                                                 | 204                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2800                                                                                                                                                                    | 1249                                                                                | 0                                                                                   | 2800                                                                                                                                                                    | 0                                                                                   |
| V/C Ratio(X)                 | 0.89                                                                              | 0.00                                                                              | 0.61                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.64                                                                                                                                                                    | 0.17                                                                                | 0.00                                                                                | 0.18                                                                                                                                                                    | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 270                                                                               | 0                                                                                 | 240                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2800                                                                                                                                                                    | 1249                                                                                | 0                                                                                   | 2800                                                                                                                                                                    | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                                                                                                    | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                    | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.56                                                                                                                                                                    | 0.56                                                                                | 0.00                                                                                | 0.86                                                                                                                                                                    | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 64.3                                                                              | 0.0                                                                               | 61.8                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 6.8                                                                                                                                                                     | 3.9                                                                                 | 0.0                                                                                 | 3.9                                                                                                                                                                     | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 25.0                                                                              | 0.0                                                                               | 3.3                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.6                                                                                                                                                                     | 0.2                                                                                 | 0.0                                                                                 | 0.1                                                                                                                                                                     | 0.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 14.2                                                                              | 0.0                                                                               | 8.2                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 15.3                                                                                                                                                                    | 2.7                                                                                 | 0.0                                                                                 | 3.1                                                                                                                                                                     | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| LnGrp Delay(d), s/veh        | 89.3                                                                              | 0.0                                                                               | 65.0                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 7.5                                                                                                                                                                     | 4.1                                                                                 | 0.0                                                                                 | 4.0                                                                                                                                                                     | 0.0                                                                                 |
| LnGrp LOS                    | F                                                                                 |                                                                                   | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    | A                                                                                                                                                                       | A                                                                                   |                                                                                     | A                                                                                                                                                                       |                                                                                     |
| Approach Vol, veh/h          | 327                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 2016                                                                               |                                                                                                                                                                         |                                                                                     | 492                                                                                 |                                                                                                                                                                         |                                                                                     |
| Approach Delay, s/veh        | 80.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 7.1                                                                                |                                                                                                                                                                         |                                                                                     | 4.0                                                                                 |                                                                                                                                                                         |                                                                                     |
| Approach LOS                 | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | A                                                                                  |                                                                                                                                                                         |                                                                                     | A                                                                                   |                                                                                                                                                                         |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 6                                                                                  |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 123.4                                                                             |                                                                                   |                                                                                   | 26.6                                                                              |                                                                                   |                                                                                   | 123.4                                                                              |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Change Period (Y+Rc), s      | 5.2                                                                               |                                                                                   |                                                                                   | 7.3                                                                               |                                                                                   |                                                                                   | 5.2                                                                                |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Green Setting (Gmax), s  | 114.8                                                                             |                                                                                   |                                                                                   | 22.7                                                                              |                                                                                   |                                                                                   | 114.8                                                                              |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 34.8                                                                              |                                                                                   |                                                                                   | 18.8                                                                              |                                                                                   |                                                                                   | 7.1                                                                                |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Green Ext Time (p_c), s      | 32.3                                                                              |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |                                                                                   | 3.8                                                                                |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 7th Control Delay, s/veh | 15.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| HCM 7th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 20: Rock Blvd &amp; WB Ramps

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |  |                                                                                     |                                                                                     |  |  |
| Traffic Volume (veh/h)       | 0                                                                                 | 0                                                                                 | 0                                                                                 | 299                                                                               | 0                                                                                 | 52                                                                                | 214                                                                                | 404                                                                                 | 0                                                                                   | 0                                                                                   | 719                                                                                 | 223                                                                                 |
| Future Volume (veh/h)        | 0                                                                                 | 0                                                                                 | 0                                                                                 | 299                                                                               | 0                                                                                 | 52                                                                                | 214                                                                                | 404                                                                                 | 0                                                                                   | 0                                                                                   | 719                                                                                 | 223                                                                                 |
| Initial Q (Qb), veh          |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       |                                                                                   |                                                                                   |                                                                                   | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                               | 1811                                                                                | 0                                                                                   | 0                                                                                   | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h         |                                                                                   |                                                                                   |                                                                                   | 315                                                                               | 0                                                                                 | 28                                                                                | 225                                                                                | 425                                                                                 | 0                                                                                   | 0                                                                                   | 757                                                                                 | 164                                                                                 |
| Peak Hour Factor             |                                                                                   |                                                                                   |                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                               | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         |                                                                                   |                                                                                   |                                                                                   | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                  | 6                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                   |                                                                                   |                                                                                   |                                                                                   | 348                                                                               | 0                                                                                 | 310                                                                               | 290                                                                                | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1653                                                                                | 358                                                                                 |
| Arrive On Green              |                                                                                   |                                                                                   |                                                                                   | 0.20                                                                              | 0.00                                                                              | 0.20                                                                              | 0.09                                                                               | 0.71                                                                                | 0.00                                                                                | 0.00                                                                                | 0.59                                                                                | 0.59                                                                                |
| Sat Flow, veh/h              |                                                                                   |                                                                                   |                                                                                   | 1725                                                                              | 0                                                                                 | 1535                                                                              | 3346                                                                               | 3532                                                                                | 0                                                                                   | 0                                                                                   | 2903                                                                                | 609                                                                                 |
| Grp Volume(v), veh/h         |                                                                                   |                                                                                   |                                                                                   | 315                                                                               | 0                                                                                 | 28                                                                                | 225                                                                                | 425                                                                                 | 0                                                                                   | 0                                                                                   | 463                                                                                 | 458                                                                                 |
| Grp Sat Flow(s),veh/h/ln     |                                                                                   |                                                                                   |                                                                                   | 1725                                                                              | 0                                                                                 | 1535                                                                              | 1673                                                                               | 1721                                                                                | 0                                                                                   | 0                                                                                   | 1721                                                                                | 1701                                                                                |
| Q Serve(g_s), s              |                                                                                   |                                                                                   |                                                                                   | 24.1                                                                              | 0.0                                                                               | 2.0                                                                               | 8.9                                                                                | 5.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 20.5                                                                                | 20.5                                                                                |
| Cycle Q Clear(g_c), s        |                                                                                   |                                                                                   |                                                                                   | 24.1                                                                              | 0.0                                                                               | 2.0                                                                               | 8.9                                                                                | 5.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 20.5                                                                                | 20.5                                                                                |
| Prop In Lane                 |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 0.00                                                                                | 0.00                                                                                |                                                                                     | 0.36                                                                                |
| Lane Grp Cap(c), veh/h       |                                                                                   |                                                                                   |                                                                                   | 348                                                                               | 0                                                                                 | 310                                                                               | 290                                                                                | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1011                                                                                | 1000                                                                                |
| V/C Ratio(X)                 |                                                                                   |                                                                                   |                                                                                   | 0.90                                                                              | 0.00                                                                              | 0.09                                                                              | 0.78                                                                               | 0.17                                                                                | 0.00                                                                                | 0.00                                                                                | 0.46                                                                                | 0.46                                                                                |
| Avail Cap(c_a), veh/h        |                                                                                   |                                                                                   |                                                                                   | 431                                                                               | 0                                                                                 | 383                                                                               | 1234                                                                               | 2453                                                                                | 0                                                                                   | 0                                                                                   | 1011                                                                                | 1000                                                                                |
| HCM Platoon Ratio            |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.98                                                                               | 0.98                                                                                | 0.00                                                                                | 0.00                                                                                | 0.93                                                                                | 0.93                                                                                |
| Uniform Delay (d), s/veh     |                                                                                   |                                                                                   |                                                                                   | 52.6                                                                              | 0.0                                                                               | 43.8                                                                              | 60.4                                                                               | 6.3                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 15.7                                                                                | 15.7                                                                                |
| Incr Delay (d2), s/veh       |                                                                                   |                                                                                   |                                                                                   | 19.5                                                                              | 0.0                                                                               | 0.1                                                                               | 4.4                                                                                | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 1.4                                                                                 | 1.4                                                                                 |
| Initial Q Delay(d3), s/veh   |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     |                                                                                   |                                                                                   |                                                                                   | 18.1                                                                              | 0.0                                                                               | 1.4                                                                               | 7.1                                                                                | 3.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 12.9                                                                                | 12.8                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        |                                                                                   |                                                                                   |                                                                                   | 72.1                                                                              | 0.0                                                                               | 43.9                                                                              | 64.7                                                                               | 6.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 17.1                                                                                | 17.1                                                                                |
| LnGrp LOS                    |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | D                                                                                 | E                                                                                  | A                                                                                   |                                                                                     |                                                                                     | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 343                                                                               |                                                                                   |                                                                                    | 650                                                                                 |                                                                                     |                                                                                     | 921                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 69.8                                                                              |                                                                                   |                                                                                    | 26.7                                                                                |                                                                                     |                                                                                     | 17.1                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 101.4                                                                             |                                                                                   |                                                                                   | 16.9                                                                              |                                                                                   | 84.5                                                                              | 33.6                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.2                                                                               |                                                                                   |                                                                                   | 5.2                                                                               |                                                                                   | 5.2                                                                               | 6.3                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 89.8                                                                              |                                                                                   |                                                                                   | 49.8                                                                              |                                                                                   | 34.8                                                                              | 33.7                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 7.5                                                                               |                                                                                   |                                                                                   | 10.9                                                                              |                                                                                   | 22.5                                                                              | 26.1                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 3.2                                                                               |                                                                                   |                                                                                   | 0.8                                                                               |                                                                                   | 4.8                                                                               | 1.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 29.8                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection Summary

## 25: Rock Blvd &amp; EB Ramps

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |  |  |                                                                                     |  |  |
| Traffic Volume (veh/h)       | 139                                                                               | 0                                                                                 | 473                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 480                                                                                 | 104                                                                                 | 0                                                                                   | 1019                                                                                | 0                                                                                   |
| Future Volume (veh/h)        | 139                                                                               | 0                                                                                 | 473                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 480                                                                                 | 104                                                                                 | 0                                                                                   | 1019                                                                                | 0                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1811                                                                              | 1811                                                                              | 1811                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1811                                                                                | 1811                                                                                | 0                                                                                   | 1811                                                                                | 0                                                                                   |
| Adj Flow Rate, veh/h         | 146                                                                               | 0                                                                                 | 250                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 505                                                                                 | 54                                                                                  | 0                                                                                   | 1073                                                                                | 0                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.95                                                                               | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 6                                                                                 | 6                                                                                 | 6                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 6                                                                                   | 6                                                                                   | 0                                                                                   | 6                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 311                                                                               | 0                                                                                 | 277                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2416                                                                                | 1078                                                                                | 0                                                                                   | 2416                                                                                | 0                                                                                   |
| Arrive On Green              | 0.18                                                                              | 0.00                                                                              | 0.18                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 1.00                                                                                | 1.00                                                                                | 0.00                                                                                | 0.70                                                                                | 0.00                                                                                |
| Sat Flow, veh/h              | 1725                                                                              | 0                                                                                 | 1535                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 3532                                                                                | 1535                                                                                | 0                                                                                   | 3622                                                                                | 0                                                                                   |
| Grp Volume(v), veh/h         | 146                                                                               | 0                                                                                 | 250                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 505                                                                                 | 54                                                                                  | 0                                                                                   | 1073                                                                                | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1725                                                                              | 0                                                                                 | 1535                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1721                                                                                | 1535                                                                                | 0                                                                                   | 1721                                                                                | 0                                                                                   |
| Q Serve(g_s), s              | 10.2                                                                              | 0.0                                                                               | 21.5                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 18.2                                                                                | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 10.2                                                                              | 0.0                                                                               | 21.5                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 18.2                                                                                | 0.0                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               |                                                                                     | 1.00                                                                                | 0.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 311                                                                               | 0                                                                                 | 277                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2416                                                                                | 1078                                                                                | 0                                                                                   | 2416                                                                                | 0                                                                                   |
| V/C Ratio(X)                 | 0.47                                                                              | 0.00                                                                              | 0.90                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.21                                                                                | 0.05                                                                                | 0.00                                                                                | 0.44                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 354                                                                               | 0                                                                                 | 315                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2416                                                                                | 1078                                                                                | 0                                                                                   | 2416                                                                                | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.97                                                                                | 0.97                                                                                | 0.00                                                                                | 0.82                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 49.6                                                                              | 0.0                                                                               | 54.2                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 8.7                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 1.1                                                                               | 0.0                                                                               | 25.9                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.5                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.0                                                                               | 0.0                                                                               | 15.6                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.1                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 10.4                                                                                | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 50.7                                                                              | 0.0                                                                               | 80.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 9.2                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | D                                                                                 |                                                                                   | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    | A                                                                                   | A                                                                                   |                                                                                     | A                                                                                   |                                                                                     |
| Approach Vol, veh/h          | 396                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 559                                                                                |                                                                                     |                                                                                     | 1073                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 69.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 0.2                                                                                |                                                                                     |                                                                                     | 9.2                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | A                                                                                  |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 6                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 100.0                                                                             |                                                                                   |                                                                                   | 31.6                                                                              |                                                                                   |                                                                                   | 100.0                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.2                                                                               |                                                                                   |                                                                                   | 7.3                                                                               |                                                                                   |                                                                                   | 5.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 94.8                                                                              |                                                                                   |                                                                                   | 27.7                                                                              |                                                                                   |                                                                                   | 94.8                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.0                                                                               |                                                                                   |                                                                                   | 23.5                                                                              |                                                                                   |                                                                                   | 20.2                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 4.1                                                                               |                                                                                   |                                                                                   | 0.8                                                                               |                                                                                   |                                                                                   | 10.8                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 18.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 20: Rock Blvd &amp; WB Ramps

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |  |                                                                                     |                                                                                     |  |  |
| Traffic Volume (veh/h)       | 0                                                                                 | 0                                                                                 | 0                                                                                 | 120                                                                               | 0                                                                                 | 137                                                                               | 558                                                                                | 1288                                                                                | 0                                                                                   | 0                                                                                   | 401                                                                                 | 298                                                                                 |
| Future Volume (veh/h)        | 0                                                                                 | 0                                                                                 | 0                                                                                 | 120                                                                               | 0                                                                                 | 137                                                                               | 558                                                                                | 1288                                                                                | 0                                                                                   | 0                                                                                   | 401                                                                                 | 298                                                                                 |
| Initial Q (Qb), veh          |                                                                                   |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       |                                                                                   |                                                                                   |                                                                                   | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                               | 1870                                                                                | 0                                                                                   | 0                                                                                   | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         |                                                                                   |                                                                                   |                                                                                   | 130                                                                               | 0                                                                                 | 72                                                                                | 607                                                                                | 1400                                                                                | 0                                                                                   | 0                                                                                   | 436                                                                                 | 227                                                                                 |
| Peak Hour Factor             |                                                                                   |                                                                                   |                                                                                   | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %         |                                                                                   |                                                                                   |                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                  | 2                                                                                   | 0                                                                                   | 0                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   |                                                                                   |                                                                                   |                                                                                   | 161                                                                               | 0                                                                                 | 143                                                                               | 673                                                                                | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1369                                                                                | 706                                                                                 |
| Arrive On Green              |                                                                                   |                                                                                   |                                                                                   | 0.09                                                                              | 0.00                                                                              | 0.09                                                                              | 0.39                                                                               | 1.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.20                                                                                | 0.20                                                                                |
| Sat Flow, veh/h              |                                                                                   |                                                                                   |                                                                                   | 1781                                                                              | 0                                                                                 | 1585                                                                              | 3456                                                                               | 3647                                                                                | 0                                                                                   | 0                                                                                   | 2360                                                                                | 1170                                                                                |
| Grp Volume(v), veh/h         |                                                                                   |                                                                                   |                                                                                   | 130                                                                               | 0                                                                                 | 72                                                                                | 607                                                                                | 1400                                                                                | 0                                                                                   | 0                                                                                   | 341                                                                                 | 322                                                                                 |
| Grp Sat Flow(s),veh/h/ln     |                                                                                   |                                                                                   |                                                                                   | 1781                                                                              | 0                                                                                 | 1585                                                                              | 1728                                                                               | 1777                                                                                | 0                                                                                   | 0                                                                                   | 1777                                                                                | 1660                                                                                |
| Q Serve(g_s), s              |                                                                                   |                                                                                   |                                                                                   | 10.7                                                                              | 0.0                                                                               | 6.5                                                                               | 24.8                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 24.6                                                                                | 24.9                                                                                |
| Cycle Q Clear(g_c), s        |                                                                                   |                                                                                   |                                                                                   | 10.7                                                                              | 0.0                                                                               | 6.5                                                                               | 24.8                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 24.6                                                                                | 24.9                                                                                |
| Prop In Lane                 |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 0.00                                                                                | 0.00                                                                                |                                                                                     | 0.70                                                                                |
| Lane Grp Cap(c), veh/h       |                                                                                   |                                                                                   |                                                                                   | 161                                                                               | 0                                                                                 | 143                                                                               | 673                                                                                | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1073                                                                                | 1002                                                                                |
| V/C Ratio(X)                 |                                                                                   |                                                                                   |                                                                                   | 0.81                                                                              | 0.00                                                                              | 0.50                                                                              | 0.90                                                                               | 0.47                                                                                | 0.00                                                                                | 0.00                                                                                | 0.32                                                                                | 0.32                                                                                |
| Avail Cap(c_a), veh/h        |                                                                                   |                                                                                   |                                                                                   | 341                                                                               | 0                                                                                 | 303                                                                               | 1608                                                                               | 2961                                                                                | 0                                                                                   | 0                                                                                   | 1073                                                                                | 1002                                                                                |
| HCM Platoon Ratio            |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                               | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.33                                                                                | 0.33                                                                                |
| Upstream Filter(I)           |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.69                                                                               | 0.69                                                                                | 0.00                                                                                | 0.00                                                                                | 0.97                                                                                | 0.97                                                                                |
| Uniform Delay (d), s/veh     |                                                                                   |                                                                                   |                                                                                   | 67.0                                                                              | 0.0                                                                               | 65.0                                                                              | 44.5                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 33.6                                                                                | 33.8                                                                                |
| Incr Delay (d2), s/veh       |                                                                                   |                                                                                   |                                                                                   | 9.2                                                                               | 0.0                                                                               | 2.7                                                                               | 3.4                                                                                | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 0.8                                                                                 |
| Initial Q Delay(d3), s/veh   |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     |                                                                                   |                                                                                   |                                                                                   | 9.1                                                                               | 0.0                                                                               | 5.0                                                                               | 13.7                                                                               | 0.3                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 17.6                                                                                | 16.8                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        |                                                                                   |                                                                                   |                                                                                   | 76.2                                                                              | 0.0                                                                               | 67.8                                                                              | 47.9                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 34.4                                                                                | 34.6                                                                                |
| LnGrp LOS                    |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | D                                                                                  | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 202                                                                               |                                                                                   |                                                                                    | 2007                                                                                |                                                                                     |                                                                                     | 663                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 73.2                                                                              |                                                                                   |                                                                                    | 14.7                                                                                |                                                                                     |                                                                                     | 34.5                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   | 5                                                                                 | 6                                                                                 |                                                                                    | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 130.2                                                                             |                                                                                   |                                                                                   | 34.4                                                                              | 95.8                                                                              |                                                                                    | 19.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 5.2                                                                               |                                                                                   |                                                                                   | 5.2                                                                               | 5.2                                                                               |                                                                                    | 6.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 109.8                                                                             |                                                                                   |                                                                                   | 69.8                                                                              | 34.8                                                                              |                                                                                    | 28.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 2.0                                                                               |                                                                                   |                                                                                   | 26.8                                                                              | 26.9                                                                              |                                                                                    | 12.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 17.6                                                                              |                                                                                   |                                                                                   | 2.4                                                                               | 2.6                                                                               |                                                                                    | 0.8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 23.4                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 25: Rock Blvd &amp; EB Ramps

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |  |  |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)       | 187                                                                               | 0                                                                                 | 229                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 1660                                                                                | 279                                                                                 | 0                                                                                   | 453                                                                                 | 0                                                                                   |
| Future Volume (veh/h)        | 187                                                                               | 0                                                                                 | 229                                                                               | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 1660                                                                                | 279                                                                                 | 0                                                                                   | 453                                                                                 | 0                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1870                                                                                | 1870                                                                                | 0                                                                                   | 1870                                                                                | 0                                                                                   |
| Adj Flow Rate, veh/h         | 203                                                                               | 0                                                                                 | 124                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1804                                                                                | 212                                                                                 | 0                                                                                   | 492                                                                                 | 0                                                                                   |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2                                                                                   | 2                                                                                   | 0                                                                                   | 2                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 229                                                                               | 0                                                                                 | 204                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2800                                                                                | 1249                                                                                | 0                                                                                   | 2800                                                                                | 0                                                                                   |
| Arrive On Green              | 0.13                                                                              | 0.00                                                                              | 0.13                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.79                                                                                | 0.79                                                                                | 0.00                                                                                | 0.79                                                                                | 0.00                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 0                                                                                 | 1585                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 3647                                                                                | 1585                                                                                | 0                                                                                   | 3741                                                                                | 0                                                                                   |
| Grp Volume(v), veh/h         | 203                                                                               | 0                                                                                 | 124                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1804                                                                                | 212                                                                                 | 0                                                                                   | 492                                                                                 | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 0                                                                                 | 1585                                                                              |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 1777                                                                                | 1585                                                                                | 0                                                                                   | 1777                                                                                | 0                                                                                   |
| Q Serve(g_s), s              | 16.8                                                                              | 0.0                                                                               | 11.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 32.8                                                                                | 4.9                                                                                 | 0.0                                                                                 | 5.1                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 16.8                                                                              | 0.0                                                                               | 11.1                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 32.8                                                                                | 4.9                                                                                 | 0.0                                                                                 | 5.1                                                                                 | 0.0                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               |                                                                                     | 1.00                                                                                | 0.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 229                                                                               | 0                                                                                 | 204                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2800                                                                                | 1249                                                                                | 0                                                                                   | 2800                                                                                | 0                                                                                   |
| V/C Ratio(X)                 | 0.89                                                                              | 0.00                                                                              | 0.61                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.64                                                                                | 0.17                                                                                | 0.00                                                                                | 0.18                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 270                                                                               | 0                                                                                 | 240                                                                               |                                                                                   |                                                                                   |                                                                                   | 0                                                                                  | 2800                                                                                | 1249                                                                                | 0                                                                                   | 2800                                                                                | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.00                                                                               | 0.56                                                                                | 0.56                                                                                | 0.00                                                                                | 0.92                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 64.3                                                                              | 0.0                                                                               | 61.8                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 6.8                                                                                 | 3.9                                                                                 | 0.0                                                                                 | 3.9                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 25.0                                                                              | 0.0                                                                               | 3.3                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.6                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.1                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 14.2                                                                              | 0.0                                                                               | 8.2                                                                               |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 15.3                                                                                | 2.7                                                                                 | 0.0                                                                                 | 3.2                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 89.3                                                                              | 0.0                                                                               | 65.0                                                                              |                                                                                   |                                                                                   |                                                                                   | 0.0                                                                                | 7.5                                                                                 | 4.1                                                                                 | 0.0                                                                                 | 4.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | F                                                                                 |                                                                                   | E                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    | A                                                                                   | A                                                                                   |                                                                                     | A                                                                                   |                                                                                     |
| Approach Vol, veh/h          | 327                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 2016                                                                               |                                                                                     |                                                                                     | 492                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 80.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | 7.1                                                                                |                                                                                     |                                                                                     | 4.0                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | A                                                                                  |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 6                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 123.4                                                                             |                                                                                   |                                                                                   | 26.6                                                                              |                                                                                   |                                                                                   | 123.4                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.2                                                                               |                                                                                   |                                                                                   | 7.3                                                                               |                                                                                   |                                                                                   | 5.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 114.8                                                                             |                                                                                   |                                                                                   | 22.7                                                                              |                                                                                   |                                                                                   | 114.8                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+l1), s | 34.8                                                                              |                                                                                   |                                                                                   | 18.8                                                                              |                                                                                   |                                                                                   | 7.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 32.3                                                                              |                                                                                   |                                                                                   | 0.5                                                                               |                                                                                   |                                                                                   | 3.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 15.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 7th TWSC  
2: Rock Blvd & C St

| Intersection                |        |      |        |                  |        |      |        |      |      |      |      |      |
|-----------------------------|--------|------|--------|------------------|--------|------|--------|------|------|------|------|------|
| Int Delay, s/veh            | 0.8    |      |        |                  |        |      |        |      |      |      |      |      |
| Movement                    | EBL    | EBT  | EBR    | WBL              | WBT    | WBR  | NBL    | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations         |        | ↕    |        | ↕                | ↕      |      | ↕      | ↕↕   | ↕    | ↕    | ↕↕   |      |
| Traffic Vol, veh/h          | 1      | 0    | 4      | 28               | 2      | 15   | 10     | 334  | 24   | 6    | 697  | 2    |
| Future Vol, veh/h           | 1      | 0    | 4      | 28               | 2      | 15   | 10     | 334  | 24   | 6    | 697  | 2    |
| Conflicting Peds, #/hr      | 0      | 0    | 0      | 0                | 0      | 0    | 2      | 0    | 1    | 1    | 0    | 2    |
| Sign Control                | Stop   | Stop | Stop   | Stop             | Stop   | Stop | Free   | Free | Free | Free | Free | Free |
| RT Channelized              | -      | -    | None   | -                | -      | None | -      | -    | None | -    | -    | None |
| Storage Length              | -      | -    | -      | 150              | -      | -    | 50     | -    | 100  | 250  | -    | -    |
| Veh in Median Storage, #    | -      | 0    | -      | -                | 0      | -    | -      | 0    | -    | -    | 0    | -    |
| Grade, %                    | -      | 0    | -      | -                | 0      | -    | -      | 0    | -    | -    | 0    | -    |
| Peak Hour Factor            | 95     | 95   | 95     | 95               | 95     | 95   | 95     | 95   | 95   | 95   | 95   | 95   |
| Heavy Vehicles, %           | 5      | 5    | 5      | 5                | 5      | 5    | 5      | 5    | 5    | 5    | 5    | 5    |
| Mvmt Flow                   | 1      | 0    | 4      | 29               | 2      | 16   | 11     | 352  | 25   | 6    | 734  | 2    |
|                             |        |      |        |                  |        |      |        |      |      |      |      |      |
| Major/Minor                 | Minor2 |      | Minor1 |                  | Major1 |      | Major2 |      |      |      |      |      |
| Conflicting Flow All        | 947    | 1148 | 370    | 753              | 1124   | 177  | 738    | 0    | 0    | 378  | 0    | 0    |
| Stage 1                     | 749    | 749  | -      | 374              | 374    | -    | -      | -    | -    | -    | -    | -    |
| Stage 2                     | 198    | 399  | -      | 379              | 750    | -    | -      | -    | -    | -    | -    | -    |
| Critical Hdwy               | 7.6    | 6.6  | 7      | 7.6              | 6.6    | 7    | 4.2    | -    | -    | 4.2  | -    | -    |
| Critical Hdwy Stg 1         | 6.6    | 5.6  | -      | 6.6              | 5.6    | -    | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2         | 6.6    | 5.6  | -      | 6.6              | 5.6    | -    | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy              | 3.55   | 4.05 | 3.35   | 3.55             | 4.05   | 3.35 | 2.25   | -    | -    | 2.25 | -    | -    |
| Pot Cap-1 Maneuver          | 211    | 193  | 619    | 293              | 199    | 826  | 844    | -    | -    | 1156 | -    | -    |
| Stage 1                     | 363    | 410  | -      | 611              | 609    | -    | -      | -    | -    | -    | -    | -    |
| Stage 2                     | 777    | 593  | -      | 606              | 410    | -    | -      | -    | -    | -    | -    | -    |
| Platoon blocked, %          |        |      |        |                  |        |      |        | -    | -    |      | -    | -    |
| Mov Cap-1 Maneuver          | 201    | 189  | 618    | 286              | 195    | 826  | 843    | -    | -    | 1155 | -    | -    |
| Mov Cap-2 Maneuver          | 201    | 189  | -      | 286              | 195    | -    | -      | -    | -    | -    | -    | -    |
| Stage 1                     | 360    | 407  | -      | 603              | 601    | -    | -      | -    | -    | -    | -    | -    |
| Stage 2                     | 750    | 585  | -      | 599              | 407    | -    | -      | -    | -    | -    | -    | -    |
|                             |        |      |        |                  |        |      |        |      |      |      |      |      |
| Approach                    | EB     |      | WB     |                  | NB     |      | SB     |      |      |      |      |      |
| HCM Control Delay, s/v13.35 |        |      | 16.09  |                  | 0.25   |      | 0.07   |      |      |      |      |      |
| HCM LOS                     | B      |      | C      |                  |        |      |        |      |      |      |      |      |
|                             |        |      |        |                  |        |      |        |      |      |      |      |      |
| Minor Lane/Major Mvmt       | NBL    | NBT  | NBR    | EBLn1WBLn1WBLn2  | SBL    | SBT  | SBR    |      |      |      |      |      |
| Capacity (veh/h)            | 843    | -    | -      | 437 286 598      | 1155   | -    | -      |      |      |      |      |      |
| HCM Lane V/C Ratio          | 0.012  | -    | -      | 0.012 0.103 0.03 | 0.005  | -    | -      |      |      |      |      |      |
| HCM Control Delay (s/veh)   | 9.3    | -    | -      | 13.3 19.1 11.2   | 8.1    | -    | -      |      |      |      |      |      |
| HCM Lane LOS                | A      | -    | -      | B C B            | A      | -    | -      |      |      |      |      |      |
| HCM 95th %tile Q(veh)       | 0      | -    | -      | 0 0.3 0.1        | 0      | -    | -      |      |      |      |      |      |



HCM 7th TWSC  
2: Rock Blvd & C St

| Intersection                |        |                                                                                   |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
|-----------------------------|--------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh            | 1.6    |                                                                                   |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| Movement                    | EBL    | EBT                                                                               | EBR    | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR  |
| Lane Configurations         |        |  |        |  |  |      |  |  |  |  |  |      |
| Traffic Vol, veh/h          | 3      | 1                                                                                 | 4      | 26                                                                                | 4                                                                                 | 15   | 9                                                                                 | 1265                                                                              | 60                                                                                | 11                                                                                  | 361                                                                                 | 1    |
| Future Vol, veh/h           | 3      | 1                                                                                 | 4      | 26                                                                                | 4                                                                                 | 15   | 9                                                                                 | 1265                                                                              | 60                                                                                | 11                                                                                  | 361                                                                                 | 1    |
| Conflicting Peds, #/hr      | 4      | 0                                                                                 | 1      | 1                                                                                 | 0                                                                                 | 4    | 5                                                                                 | 0                                                                                 | 3                                                                                 | 3                                                                                   | 0                                                                                   | 5    |
| Sign Control                | Stop   | Stop                                                                              | Stop   | Stop                                                                              | Stop                                                                              | Stop | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                                | Free                                                                                | Free |
| RT Channelized              | -      | -                                                                                 | None   | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None                                                                              | -                                                                                   | -                                                                                   | None |
| Storage Length              | -      | -                                                                                 | -      | 150                                                                               | -                                                                                 | -    | 50                                                                                | -                                                                                 | 100                                                                               | 250                                                                                 | -                                                                                   | -    |
| Veh in Median Storage, #    | -      | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                   | 0                                                                                   | -    |
| Grade, %                    | -      | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                   | 0                                                                                   | -    |
| Peak Hour Factor            | 98     | 98                                                                                | 98     | 98                                                                                | 98                                                                                | 98   | 98                                                                                | 98                                                                                | 98                                                                                | 98                                                                                  | 98                                                                                  | 98   |
| Heavy Vehicles, %           | 2      | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2    |
| Mvmt Flow                   | 3      | 1                                                                                 | 4      | 27                                                                                | 4                                                                                 | 15   | 9                                                                                 | 1291                                                                              | 61                                                                                | 11                                                                                  | 368                                                                                 | 1    |
|                             |        |                                                                                   |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| Major/Minor                 | Minor2 |                                                                                   | Minor1 |                                                                                   | Major1                                                                            |      | Major2                                                                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| Conflicting Flow All        | 1066   | 1770                                                                              | 191    | 1520                                                                              | 1709                                                                              | 652  | 374                                                                               | 0                                                                                 | 0                                                                                 | 1355                                                                                | 0                                                                                   | 0    |
| Stage 1                     | 396    | 396                                                                               | -      | 1312                                                                              | 1312                                                                              | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
| Stage 2                     | 670    | 1373                                                                              | -      | 208                                                                               | 397                                                                               | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
| Critical Hdwy               | 7.54   | 6.54                                                                              | 6.94   | 7.54                                                                              | 6.54                                                                              | 6.94 | 4.14                                                                              | -                                                                                 | -                                                                                 | 4.14                                                                                | -                                                                                   | -    |
| Critical Hdwy Stg 1         | 6.54   | 5.54                                                                              | -      | 6.54                                                                              | 5.54                                                                              | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
| Critical Hdwy Stg 2         | 6.54   | 5.54                                                                              | -      | 6.54                                                                              | 5.54                                                                              | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
| Follow-up Hdwy              | 3.52   | 4.02                                                                              | 3.32   | 3.52                                                                              | 4.02                                                                              | 3.32 | 2.22                                                                              | -                                                                                 | -                                                                                 | 2.22                                                                                | -                                                                                   | -    |
| Pot Cap-1 Maneuver          | 177    | 82                                                                                | 819    | 81                                                                                | 90                                                                                | 410  | 1181                                                                              | -                                                                                 | -                                                                                 | 504                                                                                 | -                                                                                   | -    |
| Stage 1                     | 600    | 602                                                                               | -      | 167                                                                               | 227                                                                               | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
| Stage 2                     | 413    | 212                                                                               | -      | 774                                                                               | 602                                                                               | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
| Platoon blocked, %          |        |                                                                                   |        |                                                                                   |                                                                                   |      |                                                                                   | -                                                                                 | -                                                                                 |                                                                                     | -                                                                                   | -    |
| Mov Cap-1 Maneuver          | 156    | 79                                                                                | 814    | 77                                                                                | 87                                                                                | 408  | 1175                                                                              | -                                                                                 | -                                                                                 | 502                                                                                 | -                                                                                   | -    |
| Mov Cap-2 Maneuver          | 156    | 79                                                                                | -      | 77                                                                                | 87                                                                                | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
| Stage 1                     | 584    | 586                                                                               | -      | 166                                                                               | 224                                                                               | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
| Stage 2                     | 386    | 209                                                                               | -      | 751                                                                               | 586                                                                               | -    | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -    |
|                             |        |                                                                                   |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
|                             |        |                                                                                   |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| Approach                    | EB     |                                                                                   | WB     |                                                                                   | NB                                                                                |      | SB                                                                                |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| HCM Control Delay, s/v22.18 |        |                                                                                   | 52.26  |                                                                                   | 0.05                                                                              |      | 0.36                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| HCM LOS                     | C      |                                                                                   | F      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
|                             |        |                                                                                   |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| Minor Lane/Major Mvmt       | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1WBLn2                                                                   | SBL                                                                               | SBT  | SBR                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| Capacity (veh/h)            | 1175   | -                                                                                 | -      | 218 77 229                                                                        | 502                                                                               | -    | -                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| HCM Lane V/C Ratio          | 0.008  | -                                                                                 | -      | 0.037 0.343 0.085                                                                 | 0.022                                                                             | -    | -                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| HCM Control Delay (s/veh)   | 8.1    | -                                                                                 | -      | 22.2 74.3 22.2                                                                    | 12.3                                                                              | -    | -                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| HCM Lane LOS                | A      | -                                                                                 | -      | C F C                                                                             | B                                                                                 | -    | -                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |
| HCM 95th %tile Q(veh)       | 0      | -                                                                                 | -      | 0.1 1.3 0.3                                                                       | 0.1                                                                               | -    | -                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |      |

# 

| Intersection                |        |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------|--------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh            | 1.4    |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Movement                    | EBL    | EBT                                                                               | EBR    | WBL                                                                               | WBT                                                                               | WBR   | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations         |        |  |        |  |  |       |  |  |  |  |  |  |
| Traffic Vol, veh/h          | 5      | 0                                                                                 | 10     | 45                                                                                | 1                                                                                 | 20    | 5                                                                                 | 315                                                                               | 15                                                                                | 20                                                                                  | 910                                                                                 | 5                                                                                   |
| Future Vol, veh/h           | 5      | 0                                                                                 | 10     | 45                                                                                | 1                                                                                 | 20    | 5                                                                                 | 315                                                                               | 15                                                                                | 20                                                                                  | 910                                                                                 | 5                                                                                   |
| Conflicting Peds, #/hr      | 0      | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0     | 2                                                                                 | 0                                                                                 | 1                                                                                 | 1                                                                                   | 0                                                                                   | 2                                                                                   |
| Sign Control                | Stop   | Stop                                                                              | Stop   | Stop                                                                              | Stop                                                                              | Stop  | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                                | Free                                                                                | Free                                                                                |
| RT Channelized              | -      | -                                                                                 | None   | -                                                                                 | -                                                                                 | None  | -                                                                                 | -                                                                                 | Yield                                                                             | -                                                                                   | -                                                                                   | None                                                                                |
| Storage Length              | -      | -                                                                                 | -      | 150                                                                               | -                                                                                 | -     | 50                                                                                | -                                                                                 | 0                                                                                 | 250                                                                                 | -                                                                                   | -                                                                                   |
| Veh in Median Storage, #    | -      | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | -     | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                   | 0                                                                                   | -                                                                                   |
| Grade, %                    | -      | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | -     | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                   | 0                                                                                   | -                                                                                   |
| Peak Hour Factor            | 95     | 95                                                                                | 95     | 95                                                                                | 95                                                                                | 95    | 95                                                                                | 95                                                                                | 95                                                                                | 95                                                                                  | 95                                                                                  | 95                                                                                  |
| Heavy Vehicles, %           | 5      | 5                                                                                 | 5      | 5                                                                                 | 5                                                                                 | 5     | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Mvmt Flow                   | 5      | 0                                                                                 | 11     | 47                                                                                | 1                                                                                 | 21    | 5                                                                                 | 332                                                                               | 16                                                                                | 21                                                                                  | 958                                                                                 | 5                                                                                   |
|                             |        |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Major/Minor                 | Minor2 |                                                                                   | Minor1 |                                                                                   | Major1                                                                            |       | Major2                                                                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Conflicting Flow All        | 1181   | 1348                                                                              | 484    | 864                                                                               | 1350                                                                              | 167   | 965                                                                               | 0                                                                                 | 0                                                                                 | 333                                                                                 | 0                                                                                   | 0                                                                                   |
| Stage 1                     | 1005   | 1005                                                                              | -      | 343                                                                               | 343                                                                               | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
| Stage 2                     | 177    | 343                                                                               | -      | 521                                                                               | 1007                                                                              | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
| Critical Hdwy               | 7.6    | 6.6                                                                               | 7      | 7.6                                                                               | 6.6                                                                               | 7     | 4.2                                                                               | -                                                                                 | -                                                                                 | 4.2                                                                                 | -                                                                                   | -                                                                                   |
| Critical Hdwy Stg 1         | 6.6    | 5.6                                                                               | -      | 6.6                                                                               | 5.6                                                                               | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
| Critical Hdwy Stg 2         | 6.6    | 5.6                                                                               | -      | 6.6                                                                               | 5.6                                                                               | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
| Follow-up Hdwy              | 3.55   | 4.05                                                                              | 3.35   | 3.55                                                                              | 4.05                                                                              | 3.35  | 2.25                                                                              | -                                                                                 | -                                                                                 | 2.25                                                                                | -                                                                                   | -                                                                                   |
| Pot Cap-1 Maneuver          | 142    | 146                                                                               | 521    | 243                                                                               | 145                                                                               | 839   | 691                                                                               | -                                                                                 | -                                                                                 | 1202                                                                                | -                                                                                   | -                                                                                   |
| Stage 1                     | 253    | 311                                                                               | -      | 637                                                                               | 628                                                                               | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
| Stage 2                     | 799    | 628                                                                               | -      | 499                                                                               | 310                                                                               | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
| Platoon blocked, %          |        |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   | -                                                                                 | -                                                                                 |                                                                                     | -                                                                                   | -                                                                                   |
| Mov Cap-1 Maneuver          | 134    | 142                                                                               | 520    | 232                                                                               | 141                                                                               | 838   | 690                                                                               | -                                                                                 | -                                                                                 | 1201                                                                                | -                                                                                   | -                                                                                   |
| Mov Cap-2 Maneuver          | 134    | 142                                                                               | -      | 232                                                                               | 141                                                                               | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
| Stage 1                     | 248    | 305                                                                               | -      | 632                                                                               | 623                                                                               | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
| Stage 2                     | 772    | 623                                                                               | -      | 480                                                                               | 304                                                                               | -     | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                   | -                                                                                   | -                                                                                   |
|                             |        |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Approach                    | EB     |                                                                                   | WB     |                                                                                   | NB                                                                                |       | SB                                                                                |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM Control Delay, s/v19.46 |        |                                                                                   | 20.01  |                                                                                   | 0.15                                                                              |       | 0.17                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM LOS                     | C      |                                                                                   | C      |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
|                             |        |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Minor Lane/Major Mvmt       | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1WBLn2                                                                   | SBL                                                                               | SBT   | SBR                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Capacity (veh/h)            | 690    | -                                                                                 | -      | 265                                                                               | 232                                                                               | 679   | 1201                                                                              | -                                                                                 | -                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| HCM Lane V/C Ratio          | 0.008  | -                                                                                 | -      | 0.06                                                                              | 0.204                                                                             | 0.033 | 0.018                                                                             | -                                                                                 | -                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| HCM Control Delay (s/veh)   | 10.3   | -                                                                                 | -      | 19.5                                                                              | 24.5                                                                              | 10.5  | 8.1                                                                               | -                                                                                 | -                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| HCM Lane LOS                | B      | -                                                                                 | -      | C                                                                                 | C                                                                                 | B     | A                                                                                 | -                                                                                 | -                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| HCM 95th %tile Q(veh)       | 0      | -                                                                                 | -      | 0.2                                                                               | 0.7                                                                               | 0.1   | 0.1                                                                               | -                                                                                 | -                                                                                 |                                                                                     |                                                                                     |                                                                                     |

HCM 7th TWSC  
2: Rock Blvd & C St

| Intersection                |        |      |        |                  |        |      |        |      |       |      |      |      |
|-----------------------------|--------|------|--------|------------------|--------|------|--------|------|-------|------|------|------|
| Int Delay, s/veh            | 1.8    |      |        |                  |        |      |        |      |       |      |      |      |
| Movement                    | EBL    | EBT  | EBR    | WBL              | WBT    | WBR  | NBL    | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations         |        | ↕    |        | ↕                | ↕      |      | ↕      | ↕↕   | ↕     | ↕    | ↕↕   |      |
| Traffic Vol, veh/h          | 5      | 1    | 5      | 40               | 5      | 20   | 5      | 870  | 40    | 20   | 560  | 5    |
| Future Vol, veh/h           | 5      | 1    | 5      | 40               | 5      | 20   | 5      | 870  | 40    | 20   | 560  | 5    |
| Conflicting Peds, #/hr      | 4      | 0    | 1      | 1                | 0      | 4    | 5      | 0    | 3     | 3    | 0    | 5    |
| Sign Control                | Stop   | Stop | Stop   | Stop             | Stop   | Stop | Free   | Free | Free  | Free | Free | Free |
| RT Channelized              | -      | -    | None   | -                | -      | None | -      | -    | Yield | -    | -    | None |
| Storage Length              | -      | -    | -      | 150              | -      | -    | 50     | -    | 0     | 250  | -    | -    |
| Veh in Median Storage, #    | -      | 0    | -      | -                | 0      | -    | -      | 0    | -     | -    | 0    | -    |
| Grade, %                    | -      | 0    | -      | -                | 0      | -    | -      | 0    | -     | -    | 0    | -    |
| Peak Hour Factor            | 98     | 98   | 98     | 98               | 98     | 98   | 98     | 98   | 98    | 98   | 98   | 98   |
| Heavy Vehicles, %           | 2      | 2    | 2      | 2                | 2      | 2    | 2      | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                   | 5      | 1    | 5      | 41               | 5      | 20   | 5      | 888  | 41    | 20   | 571  | 5    |
|                             |        |      |        |                  |        |      |        |      |       |      |      |      |
| Major/Minor                 | Minor2 |      | Minor1 |                  | Major1 |      | Major2 |      |       |      |      |      |
| Conflicting Flow All        | 1080   | 1521 | 294    | 1229             | 1523   | 451  | 582    | 0    | 0     | 891  | 0    | 0    |
| Stage 1                     | 620    | 620  | -      | 901              | 901    | -    | -      | -    | -     | -    | -    | -    |
| Stage 2                     | 461    | 901  | -      | 328              | 622    | -    | -      | -    | -     | -    | -    | -    |
| Critical Hdwy               | 7.54   | 6.54 | 6.94   | 7.54             | 6.54   | 6.94 | 4.14   | -    | -     | 4.14 | -    | -    |
| Critical Hdwy Stg 1         | 6.54   | 5.54 | -      | 6.54             | 5.54   | -    | -      | -    | -     | -    | -    | -    |
| Critical Hdwy Stg 2         | 6.54   | 5.54 | -      | 6.54             | 5.54   | -    | -      | -    | -     | -    | -    | -    |
| Follow-up Hdwy              | 3.52   | 4.02 | 3.32   | 3.52             | 4.02   | 3.32 | 2.22   | -    | -     | 2.22 | -    | -    |
| Pot Cap-1 Maneuver          | 172    | 117  | 702    | 134              | 117    | 556  | 989    | -    | -     | 757  | -    | -    |
| Stage 1                     | 442    | 478  | -      | 299              | 355    | -    | -      | -    | -     | -    | -    | -    |
| Stage 2                     | 550    | 355  | -      | 659              | 477    | -    | -      | -    | -     | -    | -    | -    |
| Platoon blocked, %          |        |      |        |                  |        |      |        | -    | -     |      | -    | -    |
| Mov Cap-1 Maneuver          | 152    | 113  | 698    | 127              | 112    | 552  | 984    | -    | -     | 755  | -    | -    |
| Mov Cap-2 Maneuver          | 152    | 113  | -      | 127              | 112    | -    | -      | -    | -     | -    | -    | -    |
| Stage 1                     | 428    | 463  | -      | 297              | 352    | -    | -      | -    | -     | -    | -    | -    |
| Stage 2                     | 517    | 352  | -      | 634              | 462    | -    | -      | -    | -     | -    | -    | -    |
|                             |        |      |        |                  |        |      |        |      |       |      |      |      |
| Approach                    | EB     |      | WB     |                  | NB     |      | SB     |      |       |      |      |      |
| HCM Control Delay, s/v21.83 |        |      | 35.21  |                  | 0.05   |      | 0.34   |      |       |      |      |      |
| HCM LOS                     | C      |      | E      |                  |        |      |        |      |       |      |      |      |
|                             |        |      |        |                  |        |      |        |      |       |      |      |      |
| Minor Lane/Major Mvmt       | NBL    | NBT  | NBR    | EBLn1WBLn1WBLn2  | SBL    | SBT  | SBR    |      |       |      |      |      |
| Capacity (veh/h)            | 984    | -    | -      | 225 127 310      | 755    | -    | -      |      |       |      |      |      |
| HCM Lane V/C Ratio          | 0.005  | -    | -      | 0.05 0.321 0.082 | 0.027  | -    | -      |      |       |      |      |      |
| HCM Control Delay (s/veh)   | 8.7    | -    | -      | 21.8 46.2 17.7   | 9.9    | -    | -      |      |       |      |      |      |
| HCM Lane LOS                | A      | -    | -      | C E C            | A      | -    | -      |      |       |      |      |      |
| HCM 95th %tile Q(veh)       | 0      | -    | -      | 0.2 1.3 0.3      | 0.1    | -    | -      |      |       |      |      |      |

## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 3.6                                                                               |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations         |  |  |  |      |  |  |
| Traffic Vol, veh/h          | 8                                                                                 | 150                                                                               | 231                                                                               | 22   | 242                                                                               | 472                                                                               |
| Future Vol, veh/h           | 8                                                                                 | 150                                                                               | 231                                                                               | 22   | 242                                                                               | 472                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 2                                                                                 | 0                                                                                 | 2    | 2                                                                                 | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized              | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length              | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor            | 86                                                                                | 86                                                                                | 86                                                                                | 86   | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %           | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3    | 3                                                                                 | 3                                                                                 |
| Mvmt Flow                   | 9                                                                                 | 174                                                                               | 269                                                                               | 26   | 281                                                                               | 549                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All        | 1395                                                                              | 285                                                                               | 0                                                                                 | 0    | 296                                                                               | 0                                                                                 |
| Stage 1                     | 283                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 1112                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy               | 6.43                                                                              | 6.23                                                                              | -                                                                                 | -    | 4.13                                                                              | -                                                                                 |
| Critical Hdwy Stg 1         | 5.43                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2         | 5.43                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy              | 3.527                                                                             | 3.327                                                                             | -                                                                                 | -    | 2.227                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver          | 155                                                                               | 751                                                                               | -                                                                                 | -    | 1259                                                                              | -                                                                                 |
| Stage 1                     | 762                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 313                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver          | 120                                                                               | 748                                                                               | -                                                                                 | -    | 1257                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver          | 120                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                     | 761                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 243                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v12.59 |                                                                                   | 0                                                                                 | 2.94                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                     | B                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 120 748 1257                                                                    | -                                                                                 | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.077 0.233 0.224                                                               | -                                                                                 | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 37.5 11.3 8.7                                                                   | -                                                                                 | -    |                                                                                   |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - E B A                                                                           | -                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 0.2 0.9 0.9                                                                     | -                                                                                 | -    |                                                                                   |                                                                                   |



## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 1                                                                                 | 0                                                                                 | 4                                                                                 | 28                                                                                | 2                                                                                 | 15                                                                                | 10                                                                                  | 334                                                                                 | 24                                                                                  | 6                                                                                   | 697                                                                                 | 2                                                                                   |
| Future Volume (veh/h)        | 1                                                                                 | 0                                                                                 | 4                                                                                 | 28                                                                                | 2                                                                                 | 15                                                                                | 10                                                                                  | 334                                                                                 | 24                                                                                  | 6                                                                                   | 697                                                                                 | 2                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 1                                                                                 | 0                                                                                 | 3                                                                                 | 29                                                                                | 2                                                                                 | 11                                                                                | 11                                                                                  | 352                                                                                 | 18                                                                                  | 6                                                                                   | 734                                                                                 | 1                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 40                                                                                | 5                                                                                 | 35                                                                                | 96                                                                                | 7                                                                                 | 41                                                                                | 210                                                                                 | 955                                                                                 | 807                                                                                 | 505                                                                                 | 943                                                                                 | 1                                                                                   |
| Arrive On Green              | 0.03                                                                              | 0.00                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                              | 0.02                                                                                | 0.70                                                                                | 0.70                                                                                | 0.01                                                                                | 0.52                                                                                | 0.52                                                                                |
| Sat Flow, veh/h              | 221                                                                               | 165                                                                               | 1158                                                                              | 1380                                                                              | 244                                                                               | 1341                                                                              | 1739                                                                                | 1826                                                                                | 1544                                                                                | 1739                                                                                | 1823                                                                                | 2                                                                                   |
| Grp Volume(v), veh/h         | 4                                                                                 | 0                                                                                 | 0                                                                                 | 29                                                                                | 0                                                                                 | 13                                                                                | 11                                                                                  | 352                                                                                 | 18                                                                                  | 6                                                                                   | 0                                                                                   | 735                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1543                                                                              | 0                                                                                 | 0                                                                                 | 1380                                                                              | 0                                                                                 | 1585                                                                              | 1739                                                                                | 1826                                                                                | 1544                                                                                | 1739                                                                                | 0                                                                                   | 1825                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 2.4                                                                               | 0.0                                                                               | 1.1                                                                               | 0.4                                                                                 | 10.7                                                                                | 0.5                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 43.9                                                                                |
| Cycle Q Clear(g_c), s        | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 2.7                                                                               | 0.0                                                                               | 1.1                                                                               | 0.4                                                                                 | 10.7                                                                                | 0.5                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 43.9                                                                                |
| Prop In Lane                 | 0.25                                                                              |                                                                                   | 0.75                                                                              | 1.00                                                                              |                                                                                   | 0.85                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 80                                                                                | 0                                                                                 | 0                                                                                 | 96                                                                                | 0                                                                                 | 48                                                                                | 210                                                                                 | 955                                                                                 | 807                                                                                 | 505                                                                                 | 0                                                                                   | 944                                                                                 |
| V/C Ratio(X)                 | 0.05                                                                              | 0.00                                                                              | 0.00                                                                              | 0.30                                                                              | 0.00                                                                              | 0.27                                                                              | 0.05                                                                                | 0.37                                                                                | 0.02                                                                                | 0.01                                                                                | 0.00                                                                                | 0.78                                                                                |
| Avail Cap(c_a), veh/h        | 480                                                                               | 0                                                                                 | 0                                                                                 | 464                                                                               | 0                                                                                 | 471                                                                               | 318                                                                                 | 955                                                                                 | 807                                                                                 | 623                                                                                 | 0                                                                                   | 944                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.33                                                                                | 1.33                                                                                | 1.33                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 63.6                                                                              | 0.0                                                                               | 0.0                                                                               | 64.7                                                                              | 0.0                                                                               | 64.0                                                                              | 22.2                                                                                | 11.4                                                                                | 9.9                                                                                 | 15.7                                                                                | 0.0                                                                                 | 26.4                                                                                |
| Incr Delay (d2), s/veh       | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 1.7                                                                               | 0.0                                                                               | 2.9                                                                               | 0.1                                                                                 | 1.1                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 6.3                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 1.9                                                                               | 0.0                                                                               | 0.9                                                                               | 0.3                                                                                 | 7.4                                                                                 | 0.3                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 27.8                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 63.9                                                                              | 0.0                                                                               | 0.0                                                                               | 66.5                                                                              | 0.0                                                                               | 66.9                                                                              | 22.3                                                                                | 12.5                                                                                | 9.9                                                                                 | 15.7                                                                                | 0.0                                                                                 | 32.7                                                                                |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | C                                                                                   | B                                                                                   | A                                                                                   | B                                                                                   |                                                                                     | C                                                                                   |
| Approach Vol, veh/h          | 4                                                                                 |                                                                                   |                                                                                   | 42                                                                                |                                                                                   |                                                                                   | 381                                                                                 |                                                                                     |                                                                                     | 741                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 63.9                                                                              |                                                                                   |                                                                                   | 66.6                                                                              |                                                                                   |                                                                                   | 12.7                                                                                |                                                                                     |                                                                                     | 32.5                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 5.8                                                                               | 75.8                                                                              |                                                                                   | 9.0                                                                               | 6.6                                                                               | 75.0                                                                              |                                                                                     | 9.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 40.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 40.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.2                                                                               | 12.7                                                                              |                                                                                   | 2.3                                                                               | 2.4                                                                               | 45.9                                                                              |                                                                                     | 4.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.5                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 5.7                                                                               |                                                                                     | 0.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 27.4                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 7th Signalized Intersection  
Victorian Ave & Rock Blvd

|                                                                                                    |  |  |  |  |  |  |  |  |   |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                                | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)                                                                             | 13                                                                                | 54                                                                                | 136                                                                               | 109                                                                               | 100                                                                               | 14                                                                                | 66                                                                                | 341                                                                               | 34                                                                                 | 20                                                                                  | 695                                                                                 | 19                                                                                  |
| Future Volume (veh/h)                                                                              | 13                                                                                | 54                                                                                | 136                                                                               | 109                                                                               | 100                                                                               | 14                                                                                | 66                                                                                | 341                                                                               | 34                                                                                 | 20                                                                                  | 695                                                                                 | 19                                                                                  |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 0.99                                                                              |                                                                                   | 0.99                                                                              | 0.99                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                               | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                               | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 14                                                                                | 57                                                                                | 71                                                                                | 115                                                                               | 105                                                                               | 11                                                                                | 69                                                                                | 359                                                                               | 25                                                                                 | 21                                                                                  | 732                                                                                 | 14                                                                                  |
| Peak Hour Factor                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                               | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                  | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 165                                                                               | 273                                                                               | 229                                                                               | 202                                                                               | 242                                                                               | 25                                                                                | 665                                                                               | 1296                                                                              | 1098                                                                               | 393                                                                                 | 784                                                                                 | 15                                                                                  |
| Arrive On Green                                                                                    | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.29                                                                              | 0.72                                                                              | 0.72                                                                               | 0.04                                                                                | 0.89                                                                                | 0.89                                                                                |
| Sat Flow, veh/h                                                                                    | 1219                                                                              | 1811                                                                              | 1516                                                                              | 1211                                                                              | 1604                                                                              | 168                                                                               | 1725                                                                              | 1811                                                                              | 1534                                                                               | 1725                                                                                | 1770                                                                                | 34                                                                                  |
| Grp Volume(v), veh/h                                                                               | 14                                                                                | 57                                                                                | 71                                                                                | 115                                                                               | 0                                                                                 | 116                                                                               | 69                                                                                | 359                                                                               | 25                                                                                 | 21                                                                                  | 0                                                                                   | 746                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1219                                                                              | 1811                                                                              | 1516                                                                              | 1211                                                                              | 0                                                                                 | 1772                                                                              | 1725                                                                              | 1811                                                                              | 1534                                                                               | 1725                                                                                | 0                                                                                   | 1804                                                                                |
| Q Serve(g_s), s                                                                                    | 1.4                                                                               | 3.7                                                                               | 5.6                                                                               | 12.4                                                                              | 0.0                                                                               | 8.0                                                                               | 0.0                                                                               | 9.5                                                                               | 0.6                                                                                | 1.0                                                                                 | 0.0                                                                                 | 36.8                                                                                |
| Cycle Q Clear(g_c), s                                                                              | 9.5                                                                               | 3.7                                                                               | 5.6                                                                               | 16.1                                                                              | 0.0                                                                               | 8.0                                                                               | 0.0                                                                               | 9.5                                                                               | 0.6                                                                                | 1.0                                                                                 | 0.0                                                                                 | 36.8                                                                                |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.09                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                               | 1.00                                                                                |                                                                                     | 0.02                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 165                                                                               | 273                                                                               | 229                                                                               | 202                                                                               | 0                                                                                 | 267                                                                               | 665                                                                               | 1296                                                                              | 1098                                                                               | 393                                                                                 | 0                                                                                   | 799                                                                                 |
| V/C Ratio(X)                                                                                       | 0.09                                                                              | 0.21                                                                              | 0.31                                                                              | 0.57                                                                              | 0.00                                                                              | 0.43                                                                              | 0.10                                                                              | 0.28                                                                              | 0.02                                                                               | 0.05                                                                                | 0.00                                                                                | 0.93                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 343                                                                               | 538                                                                               | 450                                                                               | 380                                                                               | 0                                                                                 | 526                                                                               | 665                                                                               | 1296                                                                              | 1098                                                                               | 548                                                                                 | 0                                                                                   | 799                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                               | 0.88                                                                                | 0.00                                                                                | 0.88                                                                                |
| Uniform Delay (d), s/veh                                                                           | 56.4                                                                              | 50.3                                                                              | 51.1                                                                              | 57.4                                                                              | 0.0                                                                               | 52.1                                                                              | 22.9                                                                              | 6.8                                                                               | 5.5                                                                                | 23.0                                                                                | 0.0                                                                                 | 6.4                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 0.2                                                                               | 0.4                                                                               | 0.8                                                                               | 2.5                                                                               | 0.0                                                                               | 1.1                                                                               | 0.1                                                                               | 0.5                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 17.5                                                                                |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 0.8                                                                               | 3.1                                                                               | 4.0                                                                               | 7.1                                                                               | 0.0                                                                               | 6.6                                                                               | 2.5                                                                               | 6.6                                                                               | 0.4                                                                                | 0.7                                                                                 | 0.0                                                                                 | 10.9                                                                                |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 56.6                                                                              | 50.6                                                                              | 51.8                                                                              | 59.8                                                                              | 0.0                                                                               | 53.2                                                                              | 22.9                                                                              | 7.3                                                                               | 5.6                                                                                | 23.0                                                                                | 0.0                                                                                 | 23.9                                                                                |
| LnGrp LOS                                                                                          | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 |                                                                                   | D                                                                                 | C                                                                                 | A                                                                                 | A                                                                                  | C                                                                                   |                                                                                     | C                                                                                   |
| Approach Vol, veh/h                                                                                | 142                                                                               |                                                                                   |                                                                                   | 231                                                                               |                                                                                   |                                                                                   | 453                                                                               |                                                                                   |                                                                                    | 767                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 51.8                                                                              |                                                                                   |                                                                                   | 56.5                                                                              |                                                                                   |                                                                                   | 9.6                                                                               |                                                                                   |                                                                                    | 23.9                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 7.8                                                                               | 101.9                                                                             |                                                                                   | 25.2                                                                              | 44.8                                                                              | 65.0                                                                              |                                                                                   | 25.2                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.1                                                                               | * 5.3                                                                             |                                                                                   | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 14.9                                                                              | * 65                                                                              |                                                                                   | 40.1                                                                              | 19.7                                                                              | 59.8                                                                              |                                                                                   | 40.1                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s                                                                        | 13.0                                                                              | 11.5                                                                              |                                                                                   | 11.5                                                                              | 2.0                                                                               | 38.8                                                                              |                                                                                   | 18.1                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.0                                                                               | 2.5                                                                               |                                                                                   | 0.6                                                                               | 0.1                                                                               | 5.6                                                                               |                                                                                   | 1.0                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 27.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| User approved pedestrian interval to be less than phase max green.                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 2.5                                                                               |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations         |  |  |  |      |  |  |
| Traffic Vol, veh/h          | 7                                                                                 | 100                                                                               | 932                                                                               | 35   | 92                                                                                | 261                                                                               |
| Future Vol, veh/h           | 7                                                                                 | 100                                                                               | 932                                                                               | 35   | 92                                                                                | 261                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 7    | 0                                                                                 | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized              | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length              | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor            | 98                                                                                | 98                                                                                | 98                                                                                | 98   | 98                                                                                | 98                                                                                |
| Heavy Vehicles, %           | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                   | 7                                                                                 | 102                                                                               | 951                                                                               | 36   | 94                                                                                | 266                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All        | 1430                                                                              | 976                                                                               | 0                                                                                 | 0    | 994                                                                               | 0                                                                                 |
| Stage 1                     | 976                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 454                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy               | 6.42                                                                              | 6.22                                                                              | -                                                                                 | -    | 4.12                                                                              | -                                                                                 |
| Critical Hdwy Stg 1         | 5.42                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2         | 5.42                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy              | 3.518                                                                             | 3.318                                                                             | -                                                                                 | -    | 2.218                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver          | 148                                                                               | 305                                                                               | -                                                                                 | -    | 696                                                                               | -                                                                                 |
| Stage 1                     | 365                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 640                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver          | 127                                                                               | 303                                                                               | -                                                                                 | -    | 691                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver          | 127                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                     | 363                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 553                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v23.62 |                                                                                   | 0                                                                                 | 2.87                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                     | C                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 127 303                                                                         | 691                                                                               | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.056 0.337                                                                     | 0.136                                                                             | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 34.9 22.8                                                                       | 11                                                                                | -    |                                                                                   |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - D C                                                                             | B                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 0.2 1.4                                                                         | 0.5                                                                               | -    |                                                                                   |                                                                                   |

HCM 7th Signalized Intersection  
2: Rock Blvd & C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 3                                                                                 | 1                                                                                 | 4                                                                                 | 26                                                                                | 4                                                                                 | 15                                                                                | 9                                                                                   | 1265                                                                                | 60                                                                                  | 11                                                                                  | 361                                                                                 | 1                                                                                   |
| Future Volume (veh/h)        | 3                                                                                 | 1                                                                                 | 4                                                                                 | 26                                                                                | 4                                                                                 | 15                                                                                | 9                                                                                   | 1265                                                                                | 60                                                                                  | 11                                                                                  | 361                                                                                 | 1                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.97                                                                              |                                                                                   | 0.96                                                                              | 0.96                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 3                                                                                 | 1                                                                                 | 3                                                                                 | 27                                                                                | 4                                                                                 | 10                                                                                | 9                                                                                   | 1291                                                                                | 29                                                                                  | 11                                                                                  | 368                                                                                 | 1                                                                                   |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 58                                                                                | 23                                                                                | 35                                                                                | 121                                                                               | 24                                                                                | 60                                                                                | 873                                                                                 | 1564                                                                                | 1293                                                                                | 265                                                                                 | 1561                                                                                | 4                                                                                   |
| Arrive On Green              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.01                                                                                | 0.84                                                                                | 0.84                                                                                | 0.01                                                                                | 0.84                                                                                | 0.84                                                                                |
| Sat Flow, veh/h              | 444                                                                               | 442                                                                               | 664                                                                               | 1361                                                                              | 460                                                                               | 1150                                                                              | 1781                                                                                | 1870                                                                                | 1547                                                                                | 1781                                                                                | 1864                                                                                | 5                                                                                   |
| Grp Volume(v), veh/h         | 7                                                                                 | 0                                                                                 | 0                                                                                 | 27                                                                                | 0                                                                                 | 14                                                                                | 9                                                                                   | 1291                                                                                | 29                                                                                  | 11                                                                                  | 0                                                                                   | 369                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1549                                                                              | 0                                                                                 | 0                                                                                 | 1361                                                                              | 0                                                                                 | 1610                                                                              | 1781                                                                                | 1870                                                                                | 1547                                                                                | 1781                                                                                | 0                                                                                   | 1869                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 2.1                                                                               | 0.0                                                                               | 1.2                                                                               | 0.1                                                                                 | 54.8                                                                                | 0.5                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 6.0                                                                                 |
| Cycle Q Clear(g_c), s        | 0.6                                                                               | 0.0                                                                               | 0.0                                                                               | 2.7                                                                               | 0.0                                                                               | 1.2                                                                               | 0.1                                                                                 | 54.8                                                                                | 0.5                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 6.0                                                                                 |
| Prop In Lane                 | 0.43                                                                              |                                                                                   | 0.43                                                                              | 1.00                                                                              |                                                                                   | 0.71                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 116                                                                               | 0                                                                                 | 0                                                                                 | 121                                                                               | 0                                                                                 | 84                                                                                | 873                                                                                 | 1564                                                                                | 1293                                                                                | 265                                                                                 | 0                                                                                   | 1565                                                                                |
| V/C Ratio(X)                 | 0.06                                                                              | 0.00                                                                              | 0.00                                                                              | 0.22                                                                              | 0.00                                                                              | 0.17                                                                              | 0.01                                                                                | 0.83                                                                                | 0.02                                                                                | 0.04                                                                                | 0.00                                                                                | 0.24                                                                                |
| Avail Cap(c_a), veh/h        | 582                                                                               | 0                                                                                 | 0                                                                                 | 549                                                                               | 0                                                                                 | 591                                                                               | 975                                                                                 | 1564                                                                                | 1293                                                                                | 365                                                                                 | 0                                                                                   | 1565                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.09                                                                                | 0.09                                                                                | 0.09                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 67.6                                                                              | 0.0                                                                               | 0.0                                                                               | 68.6                                                                              | 0.0                                                                               | 67.9                                                                              | 1.9                                                                                 | 6.5                                                                                 | 2.1                                                                                 | 12.0                                                                                | 0.0                                                                                 | 2.5                                                                                 |
| Incr Delay (d2), s/veh       | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 0.9                                                                               | 0.0                                                                               | 0.9                                                                               | 0.0                                                                                 | 0.5                                                                                 | 0.0                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.5                                                                               | 0.0                                                                               | 0.0                                                                               | 1.9                                                                               | 0.0                                                                               | 1.0                                                                               | 0.1                                                                                 | 18.8                                                                                | 0.2                                                                                 | 0.3                                                                                 | 0.0                                                                                 | 3.5                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 67.8                                                                              | 0.0                                                                               | 0.0                                                                               | 69.5                                                                              | 0.0                                                                               | 68.8                                                                              | 1.9                                                                                 | 7.0                                                                                 | 2.1                                                                                 | 12.1                                                                                | 0.0                                                                                 | 2.8                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   | A                                                                                   | B                                                                                   |                                                                                     | A                                                                                   |
| Approach Vol, veh/h          | 7                                                                                 |                                                                                   |                                                                                   | 41                                                                                |                                                                                   |                                                                                   | 1329                                                                                |                                                                                     |                                                                                     | 380                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 67.8                                                                              |                                                                                   |                                                                                   | 69.3                                                                              |                                                                                   |                                                                                   | 6.9                                                                                 |                                                                                     |                                                                                     | 3.1                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 6.6                                                                               | 130.6                                                                             |                                                                                   | 12.8                                                                              | 6.5                                                                               | 130.8                                                                             |                                                                                     | 12.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 55.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 55.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.1                                                                               | 56.8                                                                              |                                                                                   | 2.6                                                                               | 2.1                                                                               | 8.0                                                                               |                                                                                     | 4.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 9.2                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 2.5                                                                               |                                                                                     | 0.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 7.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection

## 3: Victorian Ave &amp; Rock Blvd

|                              |  |  |  |  |  |  |  |  |   |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                                | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 51                                                                                | 106                                                                               | 89                                                                                | 109                                                                               | 93                                                                                | 15                                                                                | 126                                                                               | 1266                                                                              | 63                                                                                 | 18                                                                                  | 356                                                                                 | 23                                                                                  |
| Future Volume (veh/h)        | 51                                                                                | 106                                                                               | 89                                                                                | 109                                                                               | 93                                                                                | 15                                                                                | 126                                                                               | 1266                                                                              | 63                                                                                 | 18                                                                                  | 356                                                                                 | 23                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.96                                                                              |                                                                                   | 0.97                                                                              | 0.99                                                                              |                                                                                   | 0.94                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                               | 1.00                                                                                |                                                                                     | 0.97                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                               | 1856                                                                                | 1856                                                                                | 1856                                                                                |
| Adj Flow Rate, veh/h         | 52                                                                                | 108                                                                               | 45                                                                                | 111                                                                               | 95                                                                                | 10                                                                                | 129                                                                               | 1292                                                                              | 45                                                                                 | 18                                                                                  | 363                                                                                 | 16                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                               | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                  | 3                                                                                   | 3                                                                                   | 3                                                                                   |
| Cap, veh/h                   | 218                                                                               | 200                                                                               | 164                                                                               | 232                                                                               | 230                                                                               | 24                                                                                | 426                                                                               | 871                                                                               | 719                                                                                | 79                                                                                  | 761                                                                                 | 34                                                                                  |
| Arrive On Green              | 0.04                                                                              | 0.11                                                                              | 0.11                                                                              | 0.07                                                                              | 0.14                                                                              | 0.14                                                                              | 0.05                                                                              | 0.47                                                                              | 0.47                                                                               | 0.02                                                                                | 0.43                                                                                | 0.43                                                                                |
| Sat Flow, veh/h              | 1767                                                                              | 1856                                                                              | 1529                                                                              | 1767                                                                              | 1639                                                                              | 173                                                                               | 1767                                                                              | 1856                                                                              | 1532                                                                               | 1767                                                                                | 1761                                                                                | 78                                                                                  |
| Grp Volume(v), veh/h         | 52                                                                                | 108                                                                               | 45                                                                                | 111                                                                               | 0                                                                                 | 105                                                                               | 129                                                                               | 1292                                                                              | 45                                                                                 | 18                                                                                  | 0                                                                                   | 379                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1767                                                                              | 1856                                                                              | 1529                                                                              | 1767                                                                              | 0                                                                                 | 1811                                                                              | 1767                                                                              | 1856                                                                              | 1532                                                                               | 1767                                                                                | 0                                                                                   | 1839                                                                                |
| Q Serve(g_s), s              | 3.9                                                                               | 8.3                                                                               | 4.1                                                                               | 8.2                                                                               | 0.0                                                                               | 7.9                                                                               | 5.9                                                                               | 70.4                                                                              | 2.4                                                                                | 0.8                                                                                 | 0.0                                                                                 | 22.1                                                                                |
| Cycle Q Clear(g_c), s        | 3.9                                                                               | 8.3                                                                               | 4.1                                                                               | 8.2                                                                               | 0.0                                                                               | 7.9                                                                               | 5.9                                                                               | 70.4                                                                              | 2.4                                                                                | 0.8                                                                                 | 0.0                                                                                 | 22.1                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.10                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                               | 1.00                                                                                |                                                                                     | 0.04                                                                                |
| Lane Grp Cap(c), veh/h       | 218                                                                               | 200                                                                               | 164                                                                               | 232                                                                               | 0                                                                                 | 254                                                                               | 426                                                                               | 871                                                                               | 719                                                                                | 79                                                                                  | 0                                                                                   | 794                                                                                 |
| V/C Ratio(X)                 | 0.24                                                                              | 0.54                                                                              | 0.27                                                                              | 0.48                                                                              | 0.00                                                                              | 0.41                                                                              | 0.30                                                                              | 1.48                                                                              | 0.06                                                                               | 0.23                                                                                | 0.00                                                                                | 0.48                                                                                |
| Avail Cap(c_a), veh/h        | 421                                                                               | 372                                                                               | 307                                                                               | 353                                                                               | 0                                                                                 | 339                                                                               | 505                                                                               | 871                                                                               | 719                                                                                | 282                                                                                 | 0                                                                                   | 794                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.56                                                                              | 0.56                                                                              | 0.56                                                                               | 0.98                                                                                | 0.00                                                                                | 0.98                                                                                |
| Uniform Delay (d), s/veh     | 56.8                                                                              | 63.4                                                                              | 61.5                                                                              | 53.0                                                                              | 0.0                                                                               | 58.8                                                                              | 22.5                                                                              | 39.8                                                                              | 21.8                                                                               | 37.0                                                                                | 0.0                                                                                 | 30.5                                                                                |
| Incr Delay (d2), s/veh       | 0.6                                                                               | 2.3                                                                               | 0.9                                                                               | 1.5                                                                               | 0.0                                                                               | 1.1                                                                               | 0.2                                                                               | 221.1                                                                             | 0.1                                                                                | 1.4                                                                                 | 0.0                                                                                 | 2.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.2                                                                               | 7.3                                                                               | 2.9                                                                               | 6.8                                                                               | 0.0                                                                               | 6.7                                                                               | 4.5                                                                               | 124.1                                                                             | 1.6                                                                                | 0.7                                                                                 | 0.0                                                                                 | 15.6                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 57.4                                                                              | 65.7                                                                              | 62.4                                                                              | 54.6                                                                              | 0.0                                                                               | 59.9                                                                              | 22.8                                                                              | 260.9                                                                             | 21.9                                                                               | 38.4                                                                                | 0.0                                                                                 | 32.5                                                                                |
| LnGrp LOS                    | E                                                                                 | E                                                                                 | E                                                                                 | D                                                                                 |                                                                                   | E                                                                                 | C                                                                                 | F                                                                                 | C                                                                                  | D                                                                                   |                                                                                     | C                                                                                   |
| Approach Vol, veh/h          | 205                                                                               |                                                                                   |                                                                                   | 216                                                                               |                                                                                   |                                                                                   | 1466                                                                              |                                                                                   |                                                                                    | 397                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.9                                                                              |                                                                                   |                                                                                   | 57.1                                                                              |                                                                                   |                                                                                   | 232.6                                                                             |                                                                                   |                                                                                    | 32.8                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | F                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.7                                                                               | 75.6                                                                              | 14.7                                                                              | 21.0                                                                              | 13.3                                                                              | 70.0                                                                              | 9.8                                                                               | 26.0                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.1                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.9                                                                              | 59.8                                                                              | 20.5                                                                              | 30.1                                                                              | 14.7                                                                              | 64.8                                                                              | 22.5                                                                              | 28.1                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s  | 12.8                                                                              | 72.4                                                                              | 10.2                                                                              | 10.3                                                                              | 7.9                                                                               | 24.1                                                                              | 5.9                                                                               | 9.9                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 0.0                                                                               | 0.2                                                                               | 0.6                                                                               | 0.2                                                                               | 2.6                                                                               | 0.1                                                                               | 0.4                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 166.0                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 4.1                                                                               |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations         |  |  |  |      |  |  |
| Traffic Vol, veh/h          | 10                                                                                | 180                                                                               | 200                                                                               | 30   | 290                                                                               | 540                                                                               |
| Future Vol, veh/h           | 10                                                                                | 180                                                                               | 200                                                                               | 30   | 290                                                                               | 540                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 2                                                                                 | 0                                                                                 | 2    | 2                                                                                 | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized              | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length              | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor            | 86                                                                                | 86                                                                                | 86                                                                                | 86   | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %           | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3    | 3                                                                                 | 3                                                                                 |
| Mvmt Flow                   | 12                                                                                | 209                                                                               | 233                                                                               | 35   | 337                                                                               | 628                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All        | 1554                                                                              | 254                                                                               | 0                                                                                 | 0    | 269                                                                               | 0                                                                                 |
| Stage 1                     | 252                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 1302                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy               | 6.43                                                                              | 6.23                                                                              | -                                                                                 | -    | 4.13                                                                              | -                                                                                 |
| Critical Hdwy Stg 1         | 5.43                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2         | 5.43                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy              | 3.527                                                                             | 3.327                                                                             | -                                                                                 | -    | 2.227                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver          | 124                                                                               | 782                                                                               | -                                                                                 | -    | 1288                                                                              | -                                                                                 |
| Stage 1                     | 788                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 253                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver          | 91                                                                                | 779                                                                               | -                                                                                 | -    | 1286                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver          | 91                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                     | 786                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 187                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v13.35 |                                                                                   | 0                                                                                 | 3.07                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                     | B                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 91 779                                                                          | 1286                                                                              | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.128 0.269                                                                     | 0.262                                                                             | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 50.2 11.3                                                                       | 8.8                                                                               | -    |                                                                                   |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - F B                                                                             | A                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 0.4 1.1                                                                         | 1.1                                                                               | -    |                                                                                   |                                                                                   |

HCM 7th Signalized Intersection  
2: Rock Blvd & C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 5                                                                                 | 0                                                                                 | 10                                                                                | 45                                                                                | 1                                                                                 | 20                                                                                | 5                                                                                   | 315                                                                                 | 15                                                                                  | 20                                                                                  | 910                                                                                 | 5                                                                                   |
| Future Volume (veh/h)        | 5                                                                                 | 0                                                                                 | 10                                                                                | 45                                                                                | 1                                                                                 | 20                                                                                | 5                                                                                   | 315                                                                                 | 15                                                                                  | 20                                                                                  | 910                                                                                 | 5                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 5                                                                                 | 0                                                                                 | 10                                                                                | 47                                                                                | 1                                                                                 | 15                                                                                | 5                                                                                   | 332                                                                                 | 8                                                                                   | 21                                                                                  | 958                                                                                 | 4                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 49                                                                                | 10                                                                                | 46                                                                                | 118                                                                               | 4                                                                                 | 66                                                                                | 68                                                                                  | 944                                                                                 | 799                                                                                 | 613                                                                                 | 963                                                                                 | 4                                                                                   |
| Arrive On Green              | 0.05                                                                              | 0.00                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.01                                                                                | 1.00                                                                                | 1.00                                                                                | 0.02                                                                                | 0.53                                                                                | 0.53                                                                                |
| Sat Flow, veh/h              | 290                                                                               | 224                                                                               | 1028                                                                              | 1371                                                                              | 98                                                                                | 1465                                                                              | 1739                                                                                | 1826                                                                                | 1544                                                                                | 1739                                                                                | 1817                                                                                | 8                                                                                   |
| Grp Volume(v), veh/h         | 15                                                                                | 0                                                                                 | 0                                                                                 | 47                                                                                | 0                                                                                 | 16                                                                                | 5                                                                                   | 332                                                                                 | 8                                                                                   | 21                                                                                  | 0                                                                                   | 962                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1543                                                                              | 0                                                                                 | 0                                                                                 | 1371                                                                              | 0                                                                                 | 1562                                                                              | 1739                                                                                | 1826                                                                                | 1544                                                                                | 1739                                                                                | 0                                                                                   | 1825                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 3.0                                                                               | 0.0                                                                               | 1.3                                                                               | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 0.0                                                                                 | 70.7                                                                                |
| Cycle Q Clear(g_c), s        | 1.2                                                                               | 0.0                                                                               | 0.0                                                                               | 4.2                                                                               | 0.0                                                                               | 1.3                                                                               | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 0.0                                                                                 | 70.7                                                                                |
| Prop In Lane                 | 0.33                                                                              |                                                                                   | 0.67                                                                              | 1.00                                                                              |                                                                                   | 0.94                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 105                                                                               | 0                                                                                 | 0                                                                                 | 118                                                                               | 0                                                                                 | 70                                                                                | 68                                                                                  | 944                                                                                 | 799                                                                                 | 613                                                                                 | 0                                                                                   | 967                                                                                 |
| V/C Ratio(X)                 | 0.14                                                                              | 0.00                                                                              | 0.00                                                                              | 0.40                                                                              | 0.00                                                                              | 0.23                                                                              | 0.07                                                                                | 0.35                                                                                | 0.01                                                                                | 0.03                                                                                | 0.00                                                                                | 0.99                                                                                |
| Avail Cap(c_a), veh/h        | 478                                                                               | 0                                                                                 | 0                                                                                 | 464                                                                               | 0                                                                                 | 464                                                                               | 187                                                                                 | 944                                                                                 | 799                                                                                 | 709                                                                                 | 0                                                                                   | 967                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 62.1                                                                              | 0.0                                                                               | 0.0                                                                               | 63.5                                                                              | 0.0                                                                               | 62.2                                                                              | 32.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 14.6                                                                                | 0.0                                                                                 | 31.5                                                                                |
| Incr Delay (d2), s/veh       | 0.6                                                                               | 0.0                                                                               | 0.0                                                                               | 2.1                                                                               | 0.0                                                                               | 1.6                                                                               | 0.4                                                                                 | 1.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 27.7                                                                                |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.9                                                                               | 0.0                                                                               | 0.0                                                                               | 3.0                                                                               | 0.0                                                                               | 1.0                                                                               | 0.2                                                                                 | 0.5                                                                                 | 0.0                                                                                 | 0.6                                                                                 | 0.0                                                                                 | 47.5                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 62.7                                                                              | 0.0                                                                               | 0.0                                                                               | 65.6                                                                              | 0.0                                                                               | 63.8                                                                              | 33.4                                                                                | 1.0                                                                                 | 0.0                                                                                 | 14.7                                                                                | 0.0                                                                                 | 59.2                                                                                |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | C                                                                                   | A                                                                                   | A                                                                                   | B                                                                                   |                                                                                     | E                                                                                   |
| Approach Vol, veh/h          | 15                                                                                |                                                                                   |                                                                                   | 63                                                                                |                                                                                   |                                                                                   | 345                                                                                 |                                                                                     |                                                                                     | 983                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.7                                                                              |                                                                                   |                                                                                   | 65.1                                                                              |                                                                                   |                                                                                   | 1.4                                                                                 |                                                                                     |                                                                                     | 58.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | E                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.5                                                                               | 75.0                                                                              |                                                                                   | 11.0                                                                              | 5.8                                                                               | 76.8                                                                              |                                                                                     | 11.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 40.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 40.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.8                                                                               | 2.0                                                                               |                                                                                   | 3.2                                                                               | 2.2                                                                               | 72.7                                                                              |                                                                                     | 6.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.3                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                     | 0.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 44.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

### HCM 7th Signalized Intersection 3: Victorian Ave & Rock Blvd



| Movement                     | EBL  | EBT   | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |       |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 20   | 70    | 130  | 210  | 130  | 20   | 60   | 300  | 30   | 60   | 900  | 10   |
| Future Volume (veh/h)        | 20   | 70    | 130  | 210  | 130  | 20   | 60   | 300  | 30   | 60   | 900  | 10   |
| Initial Q (Qb), veh          | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lane Width Adj.              | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped-Bike Adj(A_pbT)          | 0.99 |       | 0.99 | 0.99 |      | 0.97 | 1.00 |      | 1.00 | 1.00 |      | 0.98 |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |       |      | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       | 1811 | 1811  | 1811 | 1811 | 1811 | 1811 | 1811 | 1811 | 1811 | 1811 | 1811 | 1811 |
| Adj Flow Rate, veh/h         | 21   | 74    | 69   | 221  | 137  | 15   | 63   | 316  | 23   | 63   | 947  | 8    |
| Peak Hour Factor             | 0.95 | 0.95  | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, %         | 6    | 6     | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    |
| Cap, veh/h                   | 248  | 427   | 359  | 297  | 377  | 41   | 346  | 1118 | 946  | 442  | 861  | 7    |
| Arrive On Green              | 0.24 | 0.24  | 0.24 | 0.24 | 0.24 | 0.24 | 0.17 | 0.62 | 0.62 | 0.07 | 0.96 | 0.96 |
| Sat Flow, veh/h              | 1187 | 1811  | 1523 | 1199 | 1597 | 175  | 1725 | 1811 | 1534 | 1725 | 1793 | 15   |
| Grp Volume(v), veh/h         | 21   | 74    | 69   | 221  | 0    | 152  | 63   | 316  | 23   | 63   | 0    | 955  |
| Grp Sat Flow(s), veh/h/ln    | 1187 | 1811  | 1523 | 1199 | 0    | 1772 | 1725 | 1811 | 1534 | 1725 | 0    | 1808 |
| Q Serve(g_s), s              | 2.0  | 4.4   | 4.9  | 24.3 | 0.0  | 9.7  | 0.0  | 10.9 | 0.8  | 2.8  | 0.0  | 64.8 |
| Cycle Q Clear(g_c), s        | 11.7 | 4.4   | 4.9  | 28.7 | 0.0  | 9.7  | 0.0  | 10.9 | 0.8  | 2.8  | 0.0  | 64.8 |
| Prop In Lane                 | 1.00 |       | 1.00 | 1.00 |      | 0.10 | 1.00 |      | 1.00 | 1.00 |      | 0.01 |
| Lane Grp Cap(c), veh/h       | 248  | 427   | 359  | 297  | 0    | 418  | 346  | 1118 | 946  | 442  | 0    | 868  |
| V/C Ratio(X)                 | 0.08 | 0.17  | 0.19 | 0.74 | 0.00 | 0.36 | 0.18 | 0.28 | 0.02 | 0.14 | 0.00 | 1.10 |
| Avail Cap(c_a), veh/h        | 321  | 538   | 452  | 371  | 0    | 526  | 346  | 1118 | 946  | 574  | 0    | 868  |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I)           | 1.00 | 1.00  | 1.00 | 1.00 | 0.00 | 1.00 | 0.98 | 0.98 | 0.98 | 0.75 | 0.00 | 0.75 |
| Uniform Delay (d), s/veh     | 48.0 | 41.1  | 41.3 | 52.5 | 0.0  | 43.1 | 46.5 | 12.0 | 10.0 | 20.6 | 0.0  | 2.7  |
| Incr Delay (d2), s/veh       | 0.1  | 0.2   | 0.3  | 6.1  | 0.0  | 0.5  | 0.2  | 0.6  | 0.0  | 0.1  | 0.0  | 58.4 |
| Initial Q Delay(d3), s/veh   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln     | 1.1  | 3.6   | 3.4  | 12.4 | 0.0  | 7.8  | 3.2  | 8.1  | 0.5  | 2.0  | 0.0  | 22.2 |
| Unsig. Movement Delay, s/veh |      |       |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh        | 48.1 | 41.3  | 41.5 | 58.6 | 0.0  | 43.6 | 46.8 | 12.6 | 10.1 | 20.7 | 0.0  | 61.1 |
| LnGrp LOS                    | D    | D     | D    | E    |      | D    | D    | B    | B    | C    |      | F    |
| Approach Vol, veh/h          | 164  |       |      | 373  |      |      | 402  |      |      | 1018 |      |      |
| Approach Delay, s/veh        | 42.3 |       |      | 52.5 |      |      | 17.8 |      |      | 58.6 |      |      |
| Approach LOS                 | D    |       |      | D    |      |      | B    |      |      | E    |      |      |
| Timer - Assigned Phs         | 1    | 2     |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 9.6  | 88.6  |      | 36.8 | 28.2 | 70.0 |      | 36.8 |      |      |      |      |
| Change Period (Y+Rc), s      | 5.1  | * 5.3 |      | 4.9  | 5.3  | 5.2  |      | 4.9  |      |      |      |      |
| Max Green Setting (Gmax), s  | 14.9 | * 65  |      | 40.1 | 14.7 | 64.8 |      | 40.1 |      |      |      |      |
| Max Q Clear Time (g_c+I), s  | 14.8 | 12.9  |      | 13.7 | 2.0  | 66.8 |      | 30.7 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.1  | 2.2   |      | 0.7  | 0.1  | 0.0  |      | 1.2  |      |      |      |      |

#### Intersection Summary

|                              |      |
|------------------------------|------|
| HCM 7th Control Delay, s/veh | 47.7 |
| HCM 7th LOS                  | D    |

#### Notes

User approved pedestrian interval to be less than phase max green.

\* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 3                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations         |  |  |  |      |  |  |
| Traffic Vol, veh/h          | 10                                                                                | 130                                                                               | 880                                                                               | 20   | 130                                                                               | 460                                                                               |
| Future Vol, veh/h           | 10                                                                                | 130                                                                               | 880                                                                               | 20   | 130                                                                               | 460                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 7    | 0                                                                                 | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized              | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length              | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor            | 98                                                                                | 98                                                                                | 98                                                                                | 98   | 98                                                                                | 98                                                                                |
| Heavy Vehicles, %           | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                   | 10                                                                                | 133                                                                               | 898                                                                               | 20   | 133                                                                               | 469                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All        | 1650                                                                              | 915                                                                               | 0                                                                                 | 0    | 925                                                                               | 0                                                                                 |
| Stage 1                     | 915                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 735                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy               | 6.42                                                                              | 6.22                                                                              | -                                                                                 | -    | 4.12                                                                              | -                                                                                 |
| Critical Hdwy Stg 1         | 5.42                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2         | 5.42                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy              | 3.518                                                                             | 3.318                                                                             | -                                                                                 | -    | 2.218                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver          | 109                                                                               | 330                                                                               | -                                                                                 | -    | 738                                                                               | -                                                                                 |
| Stage 1                     | 390                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 475                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver          | 88                                                                                | 328                                                                               | -                                                                                 | -    | 734                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver          | 88                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                     | 388                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 389                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v25.19 |                                                                                   | 0                                                                                 | 2.42                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                     | D                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 88 328                                                                          | 734                                                                               | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.115 0.404                                                                     | 0.181                                                                             | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 50.9 23.2                                                                       | 11                                                                                | -    |                                                                                   |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - F C                                                                             | B                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 0.4 1.9                                                                         | 0.7                                                                               | -    |                                                                                   |                                                                                   |

## HCM 7th Signalized Intersection

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 5                                                                                 | 1                                                                                 | 5                                                                                 | 40                                                                                | 5                                                                                 | 20                                                                                | 5                                                                                   | 870                                                                                 | 40                                                                                  | 20                                                                                  | 560                                                                                 | 5                                                                                   |
| Future Volume (veh/h)        | 5                                                                                 | 1                                                                                 | 5                                                                                 | 40                                                                                | 5                                                                                 | 20                                                                                | 5                                                                                   | 870                                                                                 | 40                                                                                  | 20                                                                                  | 560                                                                                 | 5                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.97                                                                              |                                                                                   | 0.97                                                                              | 0.97                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 5                                                                                 | 1                                                                                 | 4                                                                                 | 41                                                                                | 5                                                                                 | 15                                                                                | 5                                                                                   | 888                                                                                 | 9                                                                                   | 20                                                                                  | 571                                                                                 | 5                                                                                   |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 72                                                                                | 20                                                                                | 38                                                                                | 135                                                                               | 25                                                                                | 75                                                                                | 692                                                                                 | 1533                                                                                | 1268                                                                                | 489                                                                                 | 1539                                                                                | 13                                                                                  |
| Arrive On Green              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.01                                                                                | 0.82                                                                                | 0.82                                                                                | 0.02                                                                                | 0.83                                                                                | 0.83                                                                                |
| Sat Flow, veh/h              | 580                                                                               | 329                                                                               | 606                                                                               | 1368                                                                              | 402                                                                               | 1205                                                                              | 1781                                                                                | 1870                                                                                | 1546                                                                                | 1781                                                                                | 1851                                                                                | 16                                                                                  |
| Grp Volume(v), veh/h         | 10                                                                                | 0                                                                                 | 0                                                                                 | 41                                                                                | 0                                                                                 | 20                                                                                | 5                                                                                   | 888                                                                                 | 9                                                                                   | 20                                                                                  | 0                                                                                   | 576                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1515                                                                              | 0                                                                                 | 0                                                                                 | 1368                                                                              | 0                                                                                 | 1606                                                                              | 1781                                                                                | 1870                                                                                | 1546                                                                                | 1781                                                                                | 0                                                                                   | 1867                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 3.3                                                                               | 0.0                                                                               | 1.8                                                                               | 0.1                                                                                 | 24.4                                                                                | 0.2                                                                                 | 0.3                                                                                 | 0.0                                                                                 | 11.3                                                                                |
| Cycle Q Clear(g_c), s        | 0.8                                                                               | 0.0                                                                               | 0.0                                                                               | 4.1                                                                               | 0.0                                                                               | 1.8                                                                               | 0.1                                                                                 | 24.4                                                                                | 0.2                                                                                 | 0.3                                                                                 | 0.0                                                                                 | 11.3                                                                                |
| Prop In Lane                 | 0.50                                                                              |                                                                                   | 0.40                                                                              | 1.00                                                                              |                                                                                   | 0.75                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.01                                                                                |
| Lane Grp Cap(c), veh/h       | 130                                                                               | 0                                                                                 | 0                                                                                 | 135                                                                               | 0                                                                                 | 100                                                                               | 692                                                                                 | 1533                                                                                | 1268                                                                                | 489                                                                                 | 0                                                                                   | 1553                                                                                |
| V/C Ratio(X)                 | 0.08                                                                              | 0.00                                                                              | 0.00                                                                              | 0.30                                                                              | 0.00                                                                              | 0.20                                                                              | 0.01                                                                                | 0.58                                                                                | 0.01                                                                                | 0.04                                                                                | 0.00                                                                                | 0.37                                                                                |
| Avail Cap(c_a), veh/h        | 576                                                                               | 0                                                                                 | 0                                                                                 | 552                                                                               | 0                                                                                 | 590                                                                               | 801                                                                                 | 1533                                                                                | 1268                                                                                | 577                                                                                 | 0                                                                                   | 1553                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.63                                                                                | 0.63                                                                                | 0.63                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 66.4                                                                              | 0.0                                                                               | 0.0                                                                               | 67.8                                                                              | 0.0                                                                               | 66.8                                                                              | 2.6                                                                                 | 4.6                                                                                 | 2.4                                                                                 | 4.0                                                                                 | 0.0                                                                                 | 3.1                                                                                 |
| Incr Delay (d2), s/veh       | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 1.3                                                                               | 0.0                                                                               | 1.0                                                                               | 0.0                                                                                 | 1.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.7                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.7                                                                               | 0.0                                                                               | 0.0                                                                               | 2.8                                                                               | 0.0                                                                               | 1.4                                                                               | 0.0                                                                                 | 12.0                                                                                | 0.1                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 6.7                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 66.6                                                                              | 0.0                                                                               | 0.0                                                                               | 69.1                                                                              | 0.0                                                                               | 67.8                                                                              | 2.6                                                                                 | 5.6                                                                                 | 2.5                                                                                 | 4.1                                                                                 | 0.0                                                                                 | 3.8                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |                                                                                     | A                                                                                   |
| Approach Vol, veh/h          | 10                                                                                |                                                                                   |                                                                                   | 61                                                                                |                                                                                   |                                                                                   | 902                                                                                 |                                                                                     |                                                                                     | 596                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 66.6                                                                              |                                                                                   |                                                                                   | 68.7                                                                              |                                                                                   |                                                                                   | 5.6                                                                                 |                                                                                     |                                                                                     | 3.8                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.6                                                                               | 128.2                                                                             |                                                                                   | 14.2                                                                              | 5.8                                                                               | 130.0                                                                             |                                                                                     | 14.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 55.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 55.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.3                                                                               | 26.4                                                                              |                                                                                   | 2.8                                                                               | 2.1                                                                               | 13.3                                                                              |                                                                                     | 6.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 8.9                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 4.5                                                                               |                                                                                     | 0.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 7.7                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th Signalized Intersection

## 3: Victorian Ave &amp; Rock Blvd

|                              |  |  |  |  |  |  |  |  |   |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                                | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 60                                                                                | 160                                                                               | 100                                                                               | 240                                                                               | 210                                                                               | 40                                                                                | 130                                                                               | 810                                                                               | 80                                                                                 | 30                                                                                  | 540                                                                                 | 40                                                                                  |
| Future Volume (veh/h)        | 60                                                                                | 160                                                                               | 100                                                                               | 240                                                                               | 210                                                                               | 40                                                                                | 130                                                                               | 810                                                                               | 80                                                                                 | 30                                                                                  | 540                                                                                 | 40                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.98                                                                              | 0.99                                                                              |                                                                                   | 0.95                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                               | 1.00                                                                                |                                                                                     | 0.97                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                               | 1856                                                                                | 1856                                                                                | 1856                                                                                |
| Adj Flow Rate, veh/h         | 61                                                                                | 163                                                                               | 51                                                                                | 245                                                                               | 214                                                                               | 29                                                                                | 133                                                                               | 827                                                                               | 58                                                                                 | 31                                                                                  | 551                                                                                 | 29                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                               | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                  | 3                                                                                   | 3                                                                                   | 3                                                                                   |
| Cap, veh/h                   | 225                                                                               | 237                                                                               | 196                                                                               | 329                                                                               | 347                                                                               | 47                                                                                | 286                                                                               | 861                                                                               | 711                                                                                | 112                                                                                 | 754                                                                                 | 40                                                                                  |
| Arrive On Green              | 0.04                                                                              | 0.13                                                                              | 0.13                                                                              | 0.13                                                                              | 0.22                                                                              | 0.22                                                                              | 0.06                                                                              | 0.46                                                                              | 0.46                                                                               | 0.02                                                                                | 0.43                                                                                | 0.43                                                                                |
| Sat Flow, veh/h              | 1767                                                                              | 1856                                                                              | 1535                                                                              | 1767                                                                              | 1589                                                                              | 215                                                                               | 1767                                                                              | 1856                                                                              | 1531                                                                               | 1767                                                                                | 1744                                                                                | 92                                                                                  |
| Grp Volume(v), veh/h         | 61                                                                                | 163                                                                               | 51                                                                                | 245                                                                               | 0                                                                                 | 243                                                                               | 133                                                                               | 827                                                                               | 58                                                                                 | 31                                                                                  | 0                                                                                   | 580                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1767                                                                              | 1856                                                                              | 1535                                                                              | 1767                                                                              | 0                                                                                 | 1805                                                                              | 1767                                                                              | 1856                                                                              | 1531                                                                               | 1767                                                                                | 0                                                                                   | 1836                                                                                |
| Q Serve(g_s), s              | 4.5                                                                               | 12.6                                                                              | 4.5                                                                               | 17.6                                                                              | 0.0                                                                               | 18.2                                                                              | 6.1                                                                               | 64.6                                                                              | 3.2                                                                                | 1.5                                                                                 | 0.0                                                                                 | 39.3                                                                                |
| Cycle Q Clear(g_c), s        | 4.5                                                                               | 12.6                                                                              | 4.5                                                                               | 17.6                                                                              | 0.0                                                                               | 18.2                                                                              | 6.1                                                                               | 64.6                                                                              | 3.2                                                                                | 1.5                                                                                 | 0.0                                                                                 | 39.3                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.12                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                               | 1.00                                                                                |                                                                                     | 0.05                                                                                |
| Lane Grp Cap(c), veh/h       | 225                                                                               | 237                                                                               | 196                                                                               | 329                                                                               | 0                                                                                 | 394                                                                               | 286                                                                               | 861                                                                               | 711                                                                                | 112                                                                                 | 0                                                                                   | 793                                                                                 |
| V/C Ratio(X)                 | 0.27                                                                              | 0.69                                                                              | 0.26                                                                              | 0.74                                                                              | 0.00                                                                              | 0.62                                                                              | 0.47                                                                              | 0.96                                                                              | 0.08                                                                               | 0.28                                                                                | 0.00                                                                                | 0.73                                                                                |
| Avail Cap(c_a), veh/h        | 419                                                                               | 372                                                                               | 308                                                                               | 339                                                                               | 0                                                                                 | 394                                                                               | 362                                                                               | 861                                                                               | 711                                                                                | 303                                                                                 | 0                                                                                   | 793                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.61                                                                              | 0.61                                                                              | 0.61                                                                               | 0.94                                                                                | 0.00                                                                                | 0.94                                                                                |
| Uniform Delay (d), s/veh     | 53.9                                                                              | 62.6                                                                              | 59.1                                                                              | 47.1                                                                              | 0.0                                                                               | 53.0                                                                              | 27.1                                                                              | 38.8                                                                              | 22.4                                                                               | 35.1                                                                                | 0.0                                                                                 | 35.4                                                                                |
| Incr Delay (d2), s/veh       | 0.6                                                                               | 3.6                                                                               | 0.7                                                                               | 8.4                                                                               | 0.0                                                                               | 2.9                                                                               | 0.7                                                                               | 16.1                                                                              | 0.1                                                                                | 1.3                                                                                 | 0.0                                                                                 | 5.5                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.7                                                                               | 10.3                                                                              | 3.2                                                                               | 13.4                                                                              | 0.0                                                                               | 13.5                                                                              | 4.7                                                                               | 40.2                                                                              | 2.2                                                                                | 1.2                                                                                 | 0.0                                                                                 | 25.7                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 54.5                                                                              | 66.1                                                                              | 59.8                                                                              | 55.4                                                                              | 0.0                                                                               | 55.9                                                                              | 27.8                                                                              | 55.0                                                                              | 22.5                                                                               | 36.4                                                                                | 0.0                                                                                 | 40.9                                                                                |
| LnGrp LOS                    | D                                                                                 | E                                                                                 | E                                                                                 | E                                                                                 |                                                                                   | E                                                                                 | C                                                                                 | D                                                                                 | C                                                                                  | D                                                                                   |                                                                                     | D                                                                                   |
| Approach Vol, veh/h          | 275                                                                               |                                                                                   |                                                                                   | 488                                                                               |                                                                                   |                                                                                   | 1018                                                                              |                                                                                   |                                                                                    | 611                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.4                                                                              |                                                                                   |                                                                                   | 55.6                                                                              |                                                                                   |                                                                                   | 49.6                                                                              |                                                                                   |                                                                                    | 40.7                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                    | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.7                                                                               | 74.8                                                                              | 24.2                                                                              | 24.0                                                                              | 13.6                                                                              | 70.0                                                                              | 10.5                                                                              | 37.6                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.1                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.9                                                                              | 59.8                                                                              | 20.5                                                                              | 30.1                                                                              | 14.7                                                                              | 64.8                                                                              | 22.5                                                                              | 28.1                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s  | 13.5                                                                              | 66.6                                                                              | 19.6                                                                              | 14.6                                                                              | 8.1                                                                               | 41.3                                                                              | 6.5                                                                               | 20.2                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 0.0                                                                               | 0.1                                                                               | 0.9                                                                               | 0.2                                                                               | 4.1                                                                               | 0.1                                                                               | 0.8                                                                               |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 50.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection              |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 3.5                                                                               |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
| Movement                  | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR   | SBL                                                                               | SBT                                                                               |
| Lane Configurations       |  |  |  |       |  |  |
| Traffic Vol, veh/h        | 8                                                                                 | 150                                                                               | 231                                                                               | 22    | 242                                                                               | 472                                                                               |
| Future Vol, veh/h         | 8                                                                                 | 150                                                                               | 231                                                                               | 22    | 242                                                                               | 472                                                                               |
| Conflicting Peds, #/hr    | 0                                                                                 | 2                                                                                 | 0                                                                                 | 2     | 2                                                                                 | 0                                                                                 |
| Sign Control              | Stop                                                                              | Stop                                                                              | Free                                                                              | Free  | Free                                                                              | Free                                                                              |
| RT Channelized            | -                                                                                 | Stop                                                                              | -                                                                                 | None  | -                                                                                 | None                                                                              |
| Storage Length            | 0                                                                                 | 0                                                                                 | -                                                                                 | -     | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Grade, %                  | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Peak Hour Factor          | 86                                                                                | 86                                                                                | 86                                                                                | 86    | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3     | 3                                                                                 | 3                                                                                 |
| Mvmt Flow                 | 9                                                                                 | 174                                                                               | 269                                                                               | 26    | 281                                                                               | 549                                                                               |
| Major/Minor               | Minor1                                                                            | Major1                                                                            | Major2                                                                            |       |                                                                                   |                                                                                   |
| Conflicting Flow All      | 1395                                                                              | 151                                                                               | 0                                                                                 | 0     | 296                                                                               | 0                                                                                 |
| Stage 1                   | 283                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 1112                                                                              | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy             | 6.645                                                                             | 6.945                                                                             | -                                                                                 | -     | 4.145                                                                             | -                                                                                 |
| Critical Hdwy Stg 1       | 5.845                                                                             | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2       | 5.445                                                                             | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Follow-up Hdwy            | 3.5285                                                                            | 3.3285                                                                            | -                                                                                 | -     | 2.2285                                                                            | -                                                                                 |
| Pot Cap-1 Maneuver        | 143                                                                               | 866                                                                               | -                                                                                 | -     | 1257                                                                              | -                                                                                 |
| Stage 1                   | 738                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 312                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Platoon blocked, %        |                                                                                   |                                                                                   | -                                                                                 | -     |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver        | 110                                                                               | 863                                                                               | -                                                                                 | -     | 1255                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver        | 110                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 1                   | 736                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 242                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Approach                  | WB                                                                                | NB                                                                                | SB                                                                                |       |                                                                                   |                                                                                   |
| HCM Control Delay, s/v    | 11.77                                                                             | 0                                                                                 | 2.95                                                                              |       |                                                                                   |                                                                                   |
| HCM LOS                   | B                                                                                 |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt     | NBT                                                                               | NBR                                                                               | WBLn1                                                                             | WBLn2 | SBL                                                                               | SBT                                                                               |
| Capacity (veh/h)          | -                                                                                 | -                                                                                 | 110                                                                               | 863   | 1255                                                                              | -                                                                                 |
| HCM Lane V/C Ratio        | -                                                                                 | -                                                                                 | 0.084                                                                             | 0.202 | 0.224                                                                             | -                                                                                 |
| HCM Control Delay (s/veh) | -                                                                                 | -                                                                                 | 40.6                                                                              | 10.2  | 8.7                                                                               | -                                                                                 |
| HCM Lane LOS              | -                                                                                 | -                                                                                 | E                                                                                 | B     | A                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)     | -                                                                                 | -                                                                                 | 0.3                                                                               | 0.8   | 0.9                                                                               | -                                                                                 |

## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 1                                                                                 | 0                                                                                 | 4                                                                                 | 28                                                                                | 2                                                                                 | 15                                                                                | 10                                                                                  | 334                                                                                 | 24                                                                                  | 6                                                                                   | 697                                                                                 | 2                                                                                   |
| Future Volume (veh/h)        | 1                                                                                 | 0                                                                                 | 4                                                                                 | 28                                                                                | 2                                                                                 | 15                                                                                | 10                                                                                  | 334                                                                                 | 24                                                                                  | 6                                                                                   | 697                                                                                 | 2                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 1                                                                                 | 0                                                                                 | 3                                                                                 | 29                                                                                | 2                                                                                 | 11                                                                                | 11                                                                                  | 352                                                                                 | 18                                                                                  | 6                                                                                   | 734                                                                                 | 1                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 40                                                                                | 5                                                                                 | 35                                                                                | 96                                                                                | 7                                                                                 | 41                                                                                | 210                                                                                 | 1814                                                                                | 807                                                                                 | 577                                                                                 | 943                                                                                 | 1                                                                                   |
| Arrive On Green              | 0.03                                                                              | 0.00                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                              | 0.03                                                                                | 1.00                                                                                | 1.00                                                                                | 0.01                                                                                | 0.52                                                                                | 0.52                                                                                |
| Sat Flow, veh/h              | 221                                                                               | 165                                                                               | 1158                                                                              | 1380                                                                              | 244                                                                               | 1341                                                                              | 1739                                                                                | 3469                                                                                | 1544                                                                                | 1739                                                                                | 1823                                                                                | 2                                                                                   |
| Grp Volume(v), veh/h         | 4                                                                                 | 0                                                                                 | 0                                                                                 | 29                                                                                | 0                                                                                 | 13                                                                                | 11                                                                                  | 352                                                                                 | 18                                                                                  | 6                                                                                   | 0                                                                                   | 735                                                                                 |
| Grp Sat Flow(s), veh/h/ln    | 1543                                                                              | 0                                                                                 | 0                                                                                 | 1380                                                                              | 0                                                                                 | 1585                                                                              | 1739                                                                                | 1735                                                                                | 1544                                                                                | 1739                                                                                | 0                                                                                   | 1825                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 2.4                                                                               | 0.0                                                                               | 1.1                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 43.9                                                                                |
| Cycle Q Clear(g_c), s        | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 2.7                                                                               | 0.0                                                                               | 1.1                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 43.9                                                                                |
| Prop In Lane                 | 0.25                                                                              |                                                                                   | 0.75                                                                              | 1.00                                                                              |                                                                                   | 0.85                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 80                                                                                | 0                                                                                 | 0                                                                                 | 96                                                                                | 0                                                                                 | 48                                                                                | 210                                                                                 | 1814                                                                                | 807                                                                                 | 577                                                                                 | 0                                                                                   | 944                                                                                 |
| V/C Ratio(X)                 | 0.05                                                                              | 0.00                                                                              | 0.00                                                                              | 0.30                                                                              | 0.00                                                                              | 0.27                                                                              | 0.05                                                                                | 0.19                                                                                | 0.02                                                                                | 0.01                                                                                | 0.00                                                                                | 0.78                                                                                |
| Avail Cap(c_a), veh/h        | 480                                                                               | 0                                                                                 | 0                                                                                 | 464                                                                               | 0                                                                                 | 471                                                                               | 318                                                                                 | 1814                                                                                | 807                                                                                 | 695                                                                                 | 0                                                                                   | 944                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.99                                                                                | 0.99                                                                                | 0.99                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 63.6                                                                              | 0.0                                                                               | 0.0                                                                               | 64.7                                                                              | 0.0                                                                               | 64.0                                                                              | 22.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 15.3                                                                                | 0.0                                                                                 | 26.4                                                                                |
| Incr Delay (d2), s/veh       | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 1.7                                                                               | 0.0                                                                               | 2.9                                                                               | 0.1                                                                                 | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 6.3                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 1.9                                                                               | 0.0                                                                               | 0.9                                                                               | 0.3                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 27.8                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 63.9                                                                              | 0.0                                                                               | 0.0                                                                               | 66.5                                                                              | 0.0                                                                               | 66.9                                                                              | 22.1                                                                                | 0.2                                                                                 | 0.1                                                                                 | 15.3                                                                                | 0.0                                                                                 | 32.7                                                                                |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | C                                                                                   | A                                                                                   | A                                                                                   | B                                                                                   |                                                                                     | C                                                                                   |
| Approach Vol, veh/h          | 4                                                                                 |                                                                                   |                                                                                   | 42                                                                                |                                                                                   |                                                                                   | 381                                                                                 |                                                                                     |                                                                                     | 741                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 63.9                                                                              |                                                                                   |                                                                                   | 66.6                                                                              |                                                                                   |                                                                                   | 0.9                                                                                 |                                                                                     |                                                                                     | 32.5                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 5.8                                                                               | 75.8                                                                              |                                                                                   | 9.0                                                                               | 6.6                                                                               | 75.0                                                                              |                                                                                     | 9.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 40.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 40.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.2                                                                               | 2.0                                                                               |                                                                                   | 2.3                                                                               | 2.4                                                                               | 45.9                                                                              |                                                                                     | 4.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.7                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 5.7                                                                               |                                                                                     | 0.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 23.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 3: Victorian Ave &amp; Rock Blvd

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |
| Traffic Volume (veh/h)                                                                             | 13                                                                                | 54                                                                                | 136                                                                               | 109                                                                               | 100                                                                               | 14                                                                                | 66                                                                                | 341                                                                               | 34                                                                                | 20                                                                                  | 695                                                                                 | 19                                                                                  |
| Future Volume (veh/h)                                                                              | 13                                                                                | 54                                                                                | 136                                                                               | 109                                                                               | 100                                                                               | 14                                                                                | 66                                                                                | 341                                                                               | 34                                                                                | 20                                                                                  | 695                                                                                 | 19                                                                                  |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 0.99                                                                              |                                                                                   | 0.99                                                                              | 0.99                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 14                                                                                | 57                                                                                | 71                                                                                | 115                                                                               | 105                                                                               | 11                                                                                | 69                                                                                | 359                                                                               | 25                                                                                | 21                                                                                  | 732                                                                                 | 14                                                                                  |
| Peak Hour Factor                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 165                                                                               | 273                                                                               | 229                                                                               | 202                                                                               | 242                                                                               | 25                                                                                | 749                                                                               | 2337                                                                              | 162                                                                               | 412                                                                                 | 850                                                                                 | 16                                                                                  |
| Arrive On Green                                                                                    | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.08                                                                              | 0.24                                                                              | 0.24                                                                              | 0.04                                                                                | 0.96                                                                                | 0.96                                                                                |
| Sat Flow, veh/h                                                                                    | 1226                                                                              | 1811                                                                              | 1516                                                                              | 1211                                                                              | 1607                                                                              | 168                                                                               | 1725                                                                              | 3264                                                                              | 226                                                                               | 1725                                                                                | 1770                                                                                | 34                                                                                  |
| Grp Volume(v), veh/h                                                                               | 14                                                                                | 57                                                                                | 71                                                                                | 115                                                                               | 0                                                                                 | 116                                                                               | 69                                                                                | 188                                                                               | 196                                                                               | 21                                                                                  | 0                                                                                   | 746                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1226                                                                              | 1811                                                                              | 1516                                                                              | 1211                                                                              | 0                                                                                 | 1776                                                                              | 1725                                                                              | 1721                                                                              | 1770                                                                              | 1725                                                                                | 0                                                                                   | 1804                                                                                |
| Q Serve(g_s), s                                                                                    | 1.4                                                                               | 3.7                                                                               | 5.6                                                                               | 12.4                                                                              | 0.0                                                                               | 8.0                                                                               | 0.0                                                                               | 11.7                                                                              | 11.8                                                                              | 0.9                                                                                 | 0.0                                                                                 | 12.9                                                                                |
| Cycle Q Clear(g_c), s                                                                              | 9.4                                                                               | 3.7                                                                               | 5.6                                                                               | 16.1                                                                              | 0.0                                                                               | 8.0                                                                               | 0.0                                                                               | 11.7                                                                              | 11.8                                                                              | 0.9                                                                                 | 0.0                                                                                 | 12.9                                                                                |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.09                                                                              | 1.00                                                                              |                                                                                   | 0.13                                                                              | 1.00                                                                                |                                                                                     | 0.02                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 165                                                                               | 273                                                                               | 229                                                                               | 202                                                                               | 0                                                                                 | 268                                                                               | 749                                                                               | 1232                                                                              | 1267                                                                              | 412                                                                                 | 0                                                                                   | 866                                                                                 |
| V/C Ratio(X)                                                                                       | 0.08                                                                              | 0.21                                                                              | 0.31                                                                              | 0.57                                                                              | 0.00                                                                              | 0.43                                                                              | 0.09                                                                              | 0.15                                                                              | 0.15                                                                              | 0.05                                                                                | 0.00                                                                                | 0.86                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 345                                                                               | 538                                                                               | 450                                                                               | 380                                                                               | 0                                                                                 | 527                                                                               | 749                                                                               | 1232                                                                              | 1267                                                                              | 567                                                                                 | 0                                                                                   | 866                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.33                                                                              | 0.33                                                                              | 0.33                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.88                                                                                | 0.00                                                                                | 0.88                                                                                |
| Uniform Delay (d), s/veh                                                                           | 56.4                                                                              | 50.3                                                                              | 51.1                                                                              | 57.4                                                                              | 0.0                                                                               | 52.1                                                                              | 13.3                                                                              | 19.1                                                                              | 19.2                                                                              | 20.4                                                                                | 0.0                                                                                 | 1.7                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 0.2                                                                               | 0.4                                                                               | 0.8                                                                               | 2.5                                                                               | 0.0                                                                               | 1.1                                                                               | 0.1                                                                               | 0.3                                                                               | 0.3                                                                               | 0.0                                                                                 | 0.0                                                                                 | 9.8                                                                                 |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 0.8                                                                               | 3.1                                                                               | 4.0                                                                               | 7.1                                                                               | 0.0                                                                               | 6.6                                                                               | 2.0                                                                               | 9.3                                                                               | 9.6                                                                               | 0.7                                                                                 | 0.0                                                                                 | 6.0                                                                                 |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 56.6                                                                              | 50.6                                                                              | 51.8                                                                              | 59.8                                                                              | 0.0                                                                               | 53.2                                                                              | 13.4                                                                              | 19.4                                                                              | 19.4                                                                              | 20.5                                                                                | 0.0                                                                                 | 11.5                                                                                |
| LnGrp LOS                                                                                          | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 |                                                                                   | D                                                                                 | B                                                                                 | B                                                                                 | B                                                                                 | C                                                                                   |                                                                                     | B                                                                                   |
| Approach Vol, veh/h                                                                                | 142                                                                               |                                                                                   |                                                                                   | 231                                                                               |                                                                                   |                                                                                   | 453                                                                               |                                                                                   |                                                                                   | 767                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 51.8                                                                              |                                                                                   |                                                                                   | 56.5                                                                              |                                                                                   |                                                                                   | 18.5                                                                              |                                                                                   |                                                                                   | 11.7                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                   | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 7.8                                                                               | 101.9                                                                             |                                                                                   | 25.2                                                                              | 39.8                                                                              | 70.0                                                                              |                                                                                   | 25.2                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.1                                                                               | * 5.3                                                                             |                                                                                   | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 14.9                                                                              | * 65                                                                              |                                                                                   | 40.1                                                                              | 14.7                                                                              | 64.8                                                                              |                                                                                   | 40.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s                                                                        | 12.9                                                                              | 13.8                                                                              |                                                                                   | 11.4                                                                              | 2.0                                                                               | 14.9                                                                              |                                                                                   | 18.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.0                                                                               | 2.5                                                                               |                                                                                   | 0.6                                                                               | 0.1                                                                               | 6.7                                                                               |                                                                                   | 1.0                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 23.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| User approved pedestrian interval to be less than phase max green.                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 1.9                                                                               |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations         |  |  |  |      |  |  |
| Traffic Vol, veh/h          | 7                                                                                 | 100                                                                               | 932                                                                               | 35   | 92                                                                                | 261                                                                               |
| Future Vol, veh/h           | 7                                                                                 | 100                                                                               | 932                                                                               | 35   | 92                                                                                | 261                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 7    | 0                                                                                 | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized              | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length              | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor            | 98                                                                                | 98                                                                                | 98                                                                                | 98   | 98                                                                                | 98                                                                                |
| Heavy Vehicles, %           | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                   | 7                                                                                 | 102                                                                               | 951                                                                               | 36   | 94                                                                                | 266                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All        | 1430                                                                              | 500                                                                               | 0                                                                                 | 0    | 994                                                                               | 0                                                                                 |
| Stage 1                     | 976                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 454                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy               | 6.63                                                                              | 6.93                                                                              | -                                                                                 | -    | 4.13                                                                              | -                                                                                 |
| Critical Hdwy Stg 1         | 5.83                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2         | 5.43                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy              | 3.519                                                                             | 3.319                                                                             | -                                                                                 | -    | 2.219                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver          | 136                                                                               | 517                                                                               | -                                                                                 | -    | 694                                                                               | -                                                                                 |
| Stage 1                     | 327                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 639                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver          | 117                                                                               | 513                                                                               | -                                                                                 | -    | 689                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver          | 117                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                     | 325                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 552                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v15.31 |                                                                                   | 0                                                                                 | 2.88                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                     | C                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 117 513                                                                         | 689                                                                               | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.061 0.199                                                                     | 0.136                                                                             | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 37.7 13.7                                                                       | 11                                                                                | -    |                                                                                   |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - E B                                                                             | B                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 0.2 0.7                                                                         | 0.5                                                                               | -    |                                                                                   |                                                                                   |



## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 3                                                                                 | 1                                                                                 | 4                                                                                 | 26                                                                                | 4                                                                                 | 15                                                                                | 9                                                                                   | 1265                                                                                | 60                                                                                  | 11                                                                                  | 361                                                                                 | 1                                                                                   |
| Future Volume (veh/h)        | 3                                                                                 | 1                                                                                 | 4                                                                                 | 26                                                                                | 4                                                                                 | 15                                                                                | 9                                                                                   | 1265                                                                                | 60                                                                                  | 11                                                                                  | 361                                                                                 | 1                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.96                                                                              | 0.96                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 3                                                                                 | 1                                                                                 | 3                                                                                 | 27                                                                                | 4                                                                                 | 10                                                                                | 9                                                                                   | 1291                                                                                | 29                                                                                  | 11                                                                                  | 368                                                                                 | 1                                                                                   |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 58                                                                                | 23                                                                                | 35                                                                                | 121                                                                               | 24                                                                                | 61                                                                                | 873                                                                                 | 2971                                                                                | 1293                                                                                | 378                                                                                 | 1561                                                                                | 4                                                                                   |
| Arrive On Green              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.01                                                                                | 0.84                                                                                | 0.84                                                                                | 0.01                                                                                | 0.84                                                                                | 0.84                                                                                |
| Sat Flow, veh/h              | 447                                                                               | 443                                                                               | 667                                                                               | 1361                                                                              | 465                                                                               | 1163                                                                              | 1781                                                                                | 3554                                                                                | 1547                                                                                | 1781                                                                                | 1864                                                                                | 5                                                                                   |
| Grp Volume(v), veh/h         | 7                                                                                 | 0                                                                                 | 0                                                                                 | 27                                                                                | 0                                                                                 | 14                                                                                | 9                                                                                   | 1291                                                                                | 29                                                                                  | 11                                                                                  | 0                                                                                   | 369                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1556                                                                              | 0                                                                                 | 0                                                                                 | 1361                                                                              | 0                                                                                 | 1629                                                                              | 1781                                                                                | 1777                                                                                | 1547                                                                                | 1781                                                                                | 0                                                                                   | 1869                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 2.1                                                                               | 0.0                                                                               | 1.2                                                                               | 0.1                                                                                 | 14.0                                                                                | 0.5                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 6.0                                                                                 |
| Cycle Q Clear(g_c), s        | 0.6                                                                               | 0.0                                                                               | 0.0                                                                               | 2.7                                                                               | 0.0                                                                               | 1.2                                                                               | 0.1                                                                                 | 14.0                                                                                | 0.5                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 6.0                                                                                 |
| Prop In Lane                 | 0.43                                                                              |                                                                                   | 0.43                                                                              | 1.00                                                                              |                                                                                   | 0.71                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 116                                                                               | 0                                                                                 | 0                                                                                 | 121                                                                               | 0                                                                                 | 85                                                                                | 873                                                                                 | 2971                                                                                | 1293                                                                                | 378                                                                                 | 0                                                                                   | 1565                                                                                |
| V/C Ratio(X)                 | 0.06                                                                              | 0.00                                                                              | 0.00                                                                              | 0.22                                                                              | 0.00                                                                              | 0.16                                                                              | 0.01                                                                                | 0.43                                                                                | 0.02                                                                                | 0.03                                                                                | 0.00                                                                                | 0.24                                                                                |
| Avail Cap(c_a), veh/h        | 586                                                                               | 0                                                                                 | 0                                                                                 | 549                                                                               | 0                                                                                 | 598                                                                               | 975                                                                                 | 2971                                                                                | 1293                                                                                | 478                                                                                 | 0                                                                                   | 1565                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.80                                                                                | 0.80                                                                                | 0.80                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 67.6                                                                              | 0.0                                                                               | 0.0                                                                               | 68.6                                                                              | 0.0                                                                               | 67.9                                                                              | 1.9                                                                                 | 3.2                                                                                 | 2.1                                                                                 | 2.4                                                                                 | 0.0                                                                                 | 2.5                                                                                 |
| Incr Delay (d2), s/veh       | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 0.9                                                                               | 0.0                                                                               | 0.9                                                                               | 0.0                                                                                 | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.5                                                                               | 0.0                                                                               | 0.0                                                                               | 1.9                                                                               | 0.0                                                                               | 1.0                                                                               | 0.1                                                                                 | 7.2                                                                                 | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 3.5                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 67.8                                                                              | 0.0                                                                               | 0.0                                                                               | 69.5                                                                              | 0.0                                                                               | 68.8                                                                              | 1.9                                                                                 | 3.5                                                                                 | 2.1                                                                                 | 2.4                                                                                 | 0.0                                                                                 | 2.8                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |                                                                                     | A                                                                                   |
| Approach Vol, veh/h          | 7                                                                                 |                                                                                   |                                                                                   | 41                                                                                |                                                                                   |                                                                                   | 1329                                                                                |                                                                                     |                                                                                     | 380                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 67.8                                                                              |                                                                                   |                                                                                   | 69.3                                                                              |                                                                                   |                                                                                   | 3.5                                                                                 |                                                                                     |                                                                                     | 2.8                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 6.6                                                                               | 130.6                                                                             |                                                                                   | 12.8                                                                              | 6.5                                                                               | 130.8                                                                             |                                                                                     | 12.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 55.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 55.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.1                                                                               | 16.0                                                                              |                                                                                   | 2.6                                                                               | 2.1                                                                               | 8.0                                                                               |                                                                                     | 4.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 14.4                                                                              |                                                                                   | 0.0                                                                               | 0.0                                                                               | 2.5                                                                               |                                                                                     | 0.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 5.1                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 3: Victorian Ave &amp; Rock Blvd

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 51                                                                                | 106                                                                               | 89                                                                                | 109                                                                               | 93                                                                                | 15                                                                                | 126                                                                               | 1266                                                                              | 63                                                                                | 18                                                                                  | 356                                                                                 | 23                                                                                  |
| Future Volume (veh/h)        | 51                                                                                | 106                                                                               | 89                                                                                | 109                                                                               | 93                                                                                | 15                                                                                | 126                                                                               | 1266                                                                              | 63                                                                                | 18                                                                                  | 356                                                                                 | 23                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.97                                                                              | 0.99                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                                |                                                                                     | 0.97                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                                | 1856                                                                                | 1856                                                                                |
| Adj Flow Rate, veh/h         | 52                                                                                | 108                                                                               | 45                                                                                | 111                                                                               | 95                                                                                | 10                                                                                | 129                                                                               | 1292                                                                              | 45                                                                                | 18                                                                                  | 363                                                                                 | 16                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                   | 3                                                                                   | 3                                                                                   |
| Cap, veh/h                   | 220                                                                               | 200                                                                               | 164                                                                               | 232                                                                               | 231                                                                               | 24                                                                                | 426                                                                               | 1630                                                                              | 57                                                                                | 142                                                                                 | 761                                                                                 | 34                                                                                  |
| Arrive On Green              | 0.04                                                                              | 0.11                                                                              | 0.11                                                                              | 0.07                                                                              | 0.14                                                                              | 0.14                                                                              | 0.05                                                                              | 0.47                                                                              | 0.47                                                                              | 0.02                                                                                | 0.43                                                                                | 0.43                                                                                |
| Sat Flow, veh/h              | 1767                                                                              | 1856                                                                              | 1529                                                                              | 1767                                                                              | 1644                                                                              | 173                                                                               | 1767                                                                              | 3472                                                                              | 121                                                                               | 1767                                                                                | 1761                                                                                | 78                                                                                  |
| Grp Volume(v), veh/h         | 52                                                                                | 108                                                                               | 45                                                                                | 111                                                                               | 0                                                                                 | 105                                                                               | 129                                                                               | 655                                                                               | 682                                                                               | 18                                                                                  | 0                                                                                   | 379                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1767                                                                              | 1856                                                                              | 1529                                                                              | 1767                                                                              | 0                                                                                 | 1817                                                                              | 1767                                                                              | 1763                                                                              | 1830                                                                              | 1767                                                                                | 0                                                                                   | 1839                                                                                |
| Q Serve(g_s), s              | 3.9                                                                               | 8.3                                                                               | 4.1                                                                               | 8.2                                                                               | 0.0                                                                               | 7.9                                                                               | 5.9                                                                               | 47.1                                                                              | 47.2                                                                              | 0.8                                                                                 | 0.0                                                                                 | 22.1                                                                                |
| Cycle Q Clear(g_c), s        | 3.9                                                                               | 8.3                                                                               | 4.1                                                                               | 8.2                                                                               | 0.0                                                                               | 7.9                                                                               | 5.9                                                                               | 47.1                                                                              | 47.2                                                                              | 0.8                                                                                 | 0.0                                                                                 | 22.1                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.10                                                                              | 1.00                                                                              |                                                                                   | 0.07                                                                              | 1.00                                                                                |                                                                                     | 0.04                                                                                |
| Lane Grp Cap(c), veh/h       | 220                                                                               | 200                                                                               | 164                                                                               | 232                                                                               | 0                                                                                 | 255                                                                               | 426                                                                               | 827                                                                               | 859                                                                               | 142                                                                                 | 0                                                                                   | 794                                                                                 |
| V/C Ratio(X)                 | 0.24                                                                              | 0.54                                                                              | 0.27                                                                              | 0.48                                                                              | 0.00                                                                              | 0.41                                                                              | 0.30                                                                              | 0.79                                                                              | 0.79                                                                              | 0.13                                                                                | 0.00                                                                                | 0.48                                                                                |
| Avail Cap(c_a), veh/h        | 423                                                                               | 372                                                                               | 307                                                                               | 353                                                                               | 0                                                                                 | 340                                                                               | 505                                                                               | 827                                                                               | 859                                                                               | 345                                                                                 | 0                                                                                   | 794                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.56                                                                              | 0.56                                                                              | 0.56                                                                              | 0.98                                                                                | 0.00                                                                                | 0.98                                                                                |
| Uniform Delay (d), s/veh     | 56.8                                                                              | 63.4                                                                              | 61.5                                                                              | 53.0                                                                              | 0.0                                                                               | 58.8                                                                              | 22.5                                                                              | 33.6                                                                              | 33.7                                                                              | 29.0                                                                                | 0.0                                                                                 | 30.5                                                                                |
| Incr Delay (d2), s/veh       | 0.5                                                                               | 2.3                                                                               | 0.9                                                                               | 1.5                                                                               | 0.0                                                                               | 1.1                                                                               | 0.2                                                                               | 4.4                                                                               | 4.3                                                                               | 0.4                                                                                 | 0.0                                                                                 | 2.0                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.2                                                                               | 7.3                                                                               | 2.9                                                                               | 6.8                                                                               | 0.0                                                                               | 6.7                                                                               | 4.5                                                                               | 26.7                                                                              | 27.6                                                                              | 0.7                                                                                 | 0.0                                                                                 | 15.6                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 57.4                                                                              | 65.7                                                                              | 62.4                                                                              | 54.6                                                                              | 0.0                                                                               | 59.9                                                                              | 22.8                                                                              | 38.1                                                                              | 38.0                                                                              | 29.4                                                                                | 0.0                                                                                 | 32.5                                                                                |
| LnGrp LOS                    | E                                                                                 | E                                                                                 | E                                                                                 | D                                                                                 |                                                                                   | E                                                                                 | C                                                                                 | D                                                                                 | D                                                                                 | C                                                                                   |                                                                                     | C                                                                                   |
| Approach Vol, veh/h          | 205                                                                               |                                                                                   |                                                                                   | 216                                                                               |                                                                                   |                                                                                   | 1466                                                                              |                                                                                   |                                                                                   | 397                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.9                                                                              |                                                                                   |                                                                                   | 57.1                                                                              |                                                                                   |                                                                                   | 36.7                                                                              |                                                                                   |                                                                                   | 32.3                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.7                                                                               | 75.6                                                                              | 14.7                                                                              | 21.0                                                                              | 13.3                                                                              | 70.0                                                                              | 9.8                                                                               | 26.0                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.1                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.9                                                                              | 59.8                                                                              | 20.5                                                                              | 30.1                                                                              | 14.7                                                                              | 64.8                                                                              | 22.5                                                                              | 28.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s  | 12.8                                                                              | 49.2                                                                              | 10.2                                                                              | 10.3                                                                              | 7.9                                                                               | 24.1                                                                              | 5.9                                                                               | 9.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 6.4                                                                               | 0.2                                                                               | 0.6                                                                               | 0.2                                                                               | 2.6                                                                               | 0.1                                                                               | 0.4                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 40.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection              |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 4                                                                                 |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
| Movement                  | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR   | SBL                                                                               | SBT                                                                               |
| Lane Configurations       |  |  |  |       |  |  |
| Traffic Vol, veh/h        | 10                                                                                | 180                                                                               | 200                                                                               | 30    | 290                                                                               | 540                                                                               |
| Future Vol, veh/h         | 10                                                                                | 180                                                                               | 200                                                                               | 30    | 290                                                                               | 540                                                                               |
| Conflicting Peds, #/hr    | 0                                                                                 | 2                                                                                 | 0                                                                                 | 2     | 2                                                                                 | 0                                                                                 |
| Sign Control              | Stop                                                                              | Stop                                                                              | Free                                                                              | Free  | Free                                                                              | Free                                                                              |
| RT Channelized            | -                                                                                 | Stop                                                                              | -                                                                                 | None  | -                                                                                 | None                                                                              |
| Storage Length            | 0                                                                                 | 0                                                                                 | -                                                                                 | -     | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Grade, %                  | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Peak Hour Factor          | 86                                                                                | 86                                                                                | 86                                                                                | 86    | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3     | 3                                                                                 | 3                                                                                 |
| Mvmt Flow                 | 12                                                                                | 209                                                                               | 233                                                                               | 35    | 337                                                                               | 628                                                                               |
| Major/Minor               | Minor1                                                                            | Major1                                                                            | Major2                                                                            |       |                                                                                   |                                                                                   |
| Conflicting Flow All      | 1554                                                                              | 138                                                                               | 0                                                                                 | 0     | 269                                                                               | 0                                                                                 |
| Stage 1                   | 252                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 1302                                                                              | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy             | 6.645                                                                             | 6.945                                                                             | -                                                                                 | -     | 4.145                                                                             | -                                                                                 |
| Critical Hdwy Stg 1       | 5.845                                                                             | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2       | 5.445                                                                             | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Follow-up Hdwy            | 3.5285                                                                            | 3.3285                                                                            | -                                                                                 | -     | 2.2285                                                                            | -                                                                                 |
| Pot Cap-1 Maneuver        | 113                                                                               | 883                                                                               | -                                                                                 | -     | 1286                                                                              | -                                                                                 |
| Stage 1                   | 765                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 252                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Platoon blocked, %        |                                                                                   |                                                                                   | -                                                                                 | -     |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver        | 83                                                                                | 880                                                                               | -                                                                                 | -     | 1284                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver        | 83                                                                                | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 1                   | 763                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                   | 186                                                                               | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Approach                  | WB                                                                                | NB                                                                                | SB                                                                                |       |                                                                                   |                                                                                   |
| HCM Control Delay, s/v    | 12.73                                                                             | 0                                                                                 | 3.07                                                                              |       |                                                                                   |                                                                                   |
| HCM LOS                   | B                                                                                 |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt     | NBT                                                                               | NBR                                                                               | WBLn1                                                                             | WBLn2 | SBL                                                                               | SBT                                                                               |
| Capacity (veh/h)          | -                                                                                 | -                                                                                 | 83                                                                                | 880   | 1284                                                                              | -                                                                                 |
| HCM Lane V/C Ratio        | -                                                                                 | -                                                                                 | 0.14                                                                              | 0.238 | 0.263                                                                             | -                                                                                 |
| HCM Control Delay (s/veh) | -                                                                                 | -                                                                                 | 55.3                                                                              | 10.4  | 8.8                                                                               | -                                                                                 |
| HCM Lane LOS              | -                                                                                 | -                                                                                 | F                                                                                 | B     | A                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)     | -                                                                                 | -                                                                                 | 0.5                                                                               | 0.9   | 1.1                                                                               | -                                                                                 |

## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 5                                                                                 | 0                                                                                 | 10                                                                                | 45                                                                                | 1                                                                                 | 20                                                                                | 5                                                                                   | 315                                                                                 | 15                                                                                  | 20                                                                                  | 910                                                                                 | 5                                                                                   |
| Future Volume (veh/h)        | 5                                                                                 | 0                                                                                 | 10                                                                                | 45                                                                                | 1                                                                                 | 20                                                                                | 5                                                                                   | 315                                                                                 | 15                                                                                  | 20                                                                                  | 910                                                                                 | 5                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                              | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                | 1826                                                                                |
| Adj Flow Rate, veh/h         | 5                                                                                 | 0                                                                                 | 10                                                                                | 47                                                                                | 1                                                                                 | 15                                                                                | 5                                                                                   | 332                                                                                 | 8                                                                                   | 21                                                                                  | 958                                                                                 | 4                                                                                   |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                 | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   | 5                                                                                   |
| Cap, veh/h                   | 49                                                                                | 10                                                                                | 46                                                                                | 118                                                                               | 4                                                                                 | 66                                                                                | 68                                                                                  | 1794                                                                                | 799                                                                                 | 613                                                                                 | 963                                                                                 | 4                                                                                   |
| Arrive On Green              | 0.05                                                                              | 0.00                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.05                                                                              | 0.01                                                                                | 1.00                                                                                | 1.00                                                                                | 0.02                                                                                | 0.53                                                                                | 0.53                                                                                |
| Sat Flow, veh/h              | 290                                                                               | 224                                                                               | 1028                                                                              | 1371                                                                              | 98                                                                                | 1465                                                                              | 1739                                                                                | 3469                                                                                | 1544                                                                                | 1739                                                                                | 1817                                                                                | 8                                                                                   |
| Grp Volume(v), veh/h         | 15                                                                                | 0                                                                                 | 0                                                                                 | 47                                                                                | 0                                                                                 | 16                                                                                | 5                                                                                   | 332                                                                                 | 8                                                                                   | 21                                                                                  | 0                                                                                   | 962                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1543                                                                              | 0                                                                                 | 0                                                                                 | 1371                                                                              | 0                                                                                 | 1562                                                                              | 1739                                                                                | 1735                                                                                | 1544                                                                                | 1739                                                                                | 0                                                                                   | 1825                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 3.0                                                                               | 0.0                                                                               | 1.3                                                                               | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 0.0                                                                                 | 70.7                                                                                |
| Cycle Q Clear(g_c), s        | 1.2                                                                               | 0.0                                                                               | 0.0                                                                               | 4.2                                                                               | 0.0                                                                               | 1.3                                                                               | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 0.0                                                                                 | 70.7                                                                                |
| Prop In Lane                 | 0.33                                                                              |                                                                                   | 0.67                                                                              | 1.00                                                                              |                                                                                   | 0.94                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.00                                                                                |
| Lane Grp Cap(c), veh/h       | 105                                                                               | 0                                                                                 | 0                                                                                 | 118                                                                               | 0                                                                                 | 70                                                                                | 68                                                                                  | 1794                                                                                | 799                                                                                 | 613                                                                                 | 0                                                                                   | 967                                                                                 |
| V/C Ratio(X)                 | 0.14                                                                              | 0.00                                                                              | 0.00                                                                              | 0.40                                                                              | 0.00                                                                              | 0.23                                                                              | 0.07                                                                                | 0.19                                                                                | 0.01                                                                                | 0.03                                                                                | 0.00                                                                                | 0.99                                                                                |
| Avail Cap(c_a), veh/h        | 478                                                                               | 0                                                                                 | 0                                                                                 | 464                                                                               | 0                                                                                 | 464                                                                               | 187                                                                                 | 1794                                                                                | 799                                                                                 | 709                                                                                 | 0                                                                                   | 967                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.99                                                                                | 0.99                                                                                | 0.99                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 62.1                                                                              | 0.0                                                                               | 0.0                                                                               | 63.5                                                                              | 0.0                                                                               | 62.2                                                                              | 32.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 14.6                                                                                | 0.0                                                                                 | 31.5                                                                                |
| Incr Delay (d2), s/veh       | 0.6                                                                               | 0.0                                                                               | 0.0                                                                               | 2.1                                                                               | 0.0                                                                               | 1.6                                                                               | 0.5                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 27.7                                                                                |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.9                                                                               | 0.0                                                                               | 0.0                                                                               | 3.0                                                                               | 0.0                                                                               | 1.0                                                                               | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.6                                                                                 | 0.0                                                                                 | 47.5                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 62.7                                                                              | 0.0                                                                               | 0.0                                                                               | 65.6                                                                              | 0.0                                                                               | 63.8                                                                              | 33.4                                                                                | 0.2                                                                                 | 0.0                                                                                 | 14.7                                                                                | 0.0                                                                                 | 59.2                                                                                |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | C                                                                                   | A                                                                                   | A                                                                                   | B                                                                                   |                                                                                     | E                                                                                   |
| Approach Vol, veh/h          | 15                                                                                |                                                                                   |                                                                                   | 63                                                                                |                                                                                   |                                                                                   | 345                                                                                 |                                                                                     |                                                                                     | 983                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.7                                                                              |                                                                                   |                                                                                   | 65.1                                                                              |                                                                                   |                                                                                   | 0.7                                                                                 |                                                                                     |                                                                                     | 58.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | E                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.5                                                                               | 75.0                                                                              |                                                                                   | 11.0                                                                              | 5.8                                                                               | 76.8                                                                              |                                                                                     | 11.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 40.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 40.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.8                                                                               | 2.0                                                                               |                                                                                   | 3.2                                                                               | 2.2                                                                               | 72.7                                                                              |                                                                                     | 6.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.5                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |                                                                                     | 0.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 44.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 3: Victorian Ave &amp; Rock Blvd

|                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                                                                                           | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations                                                                                |  |  |  |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |
| Traffic Volume (veh/h)                                                                             | 20                                                                                | 70                                                                                | 130                                                                               | 210                                                                               | 130                                                                               | 20                                                                                | 60                                                                                | 300                                                                               | 30                                                                                | 60                                                                                  | 900                                                                                 | 10                                                                                  |
| Future Volume (veh/h)                                                                              | 20                                                                                | 70                                                                                | 130                                                                               | 210                                                                               | 130                                                                               | 20                                                                                | 60                                                                                | 300                                                                               | 30                                                                                | 60                                                                                  | 900                                                                                 | 10                                                                                  |
| Initial Q (Qb), veh                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.                                                                                    | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)                                                                                | 1.00                                                                              |                                                                                   | 0.99                                                                              | 0.99                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj                                                                                   | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach                                                                              | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln                                                                             | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                              | 1811                                                                                | 1811                                                                                | 1811                                                                                |
| Adj Flow Rate, veh/h                                                                               | 21                                                                                | 74                                                                                | 69                                                                                | 221                                                                               | 137                                                                               | 15                                                                                | 63                                                                                | 316                                                                               | 23                                                                                | 63                                                                                  | 947                                                                                 | 8                                                                                   |
| Peak Hour Factor                                                                                   | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %                                                                               | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                 | 6                                                                                   | 6                                                                                   | 6                                                                                   |
| Cap, veh/h                                                                                         | 249                                                                               | 427                                                                               | 359                                                                               | 297                                                                               | 378                                                                               | 41                                                                                | 346                                                                               | 2008                                                                              | 145                                                                               | 442                                                                                 | 861                                                                                 | 7                                                                                   |
| Arrive On Green                                                                                    | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.06                                                                              | 0.20                                                                              | 0.20                                                                              | 0.07                                                                                | 0.96                                                                                | 0.96                                                                                |
| Sat Flow, veh/h                                                                                    | 1191                                                                              | 1811                                                                              | 1523                                                                              | 1199                                                                              | 1600                                                                              | 175                                                                               | 1725                                                                              | 3253                                                                              | 236                                                                               | 1725                                                                                | 1793                                                                                | 15                                                                                  |
| Grp Volume(v), veh/h                                                                               | 21                                                                                | 74                                                                                | 69                                                                                | 221                                                                               | 0                                                                                 | 152                                                                               | 63                                                                                | 166                                                                               | 173                                                                               | 63                                                                                  | 0                                                                                   | 955                                                                                 |
| Grp Sat Flow(s),veh/h/ln                                                                           | 1191                                                                              | 1811                                                                              | 1523                                                                              | 1199                                                                              | 0                                                                                 | 1775                                                                              | 1725                                                                              | 1721                                                                              | 1768                                                                              | 1725                                                                                | 0                                                                                   | 1808                                                                                |
| Q Serve(g_s), s                                                                                    | 2.0                                                                               | 4.4                                                                               | 4.9                                                                               | 24.3                                                                              | 0.0                                                                               | 9.7                                                                               | 0.5                                                                               | 10.7                                                                              | 10.8                                                                              | 2.8                                                                                 | 0.0                                                                                 | 64.8                                                                                |
| Cycle Q Clear(g_c), s                                                                              | 11.7                                                                              | 4.4                                                                               | 4.9                                                                               | 28.7                                                                              | 0.0                                                                               | 9.7                                                                               | 0.5                                                                               | 10.7                                                                              | 10.8                                                                              | 2.8                                                                                 | 0.0                                                                                 | 64.8                                                                                |
| Prop In Lane                                                                                       | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.10                                                                              | 1.00                                                                              |                                                                                   | 0.13                                                                              | 1.00                                                                                |                                                                                     | 0.01                                                                                |
| Lane Grp Cap(c), veh/h                                                                             | 249                                                                               | 427                                                                               | 359                                                                               | 297                                                                               | 0                                                                                 | 419                                                                               | 346                                                                               | 1062                                                                              | 1091                                                                              | 442                                                                                 | 0                                                                                   | 868                                                                                 |
| V/C Ratio(X)                                                                                       | 0.08                                                                              | 0.17                                                                              | 0.19                                                                              | 0.74                                                                              | 0.00                                                                              | 0.36                                                                              | 0.18                                                                              | 0.16                                                                              | 0.16                                                                              | 0.14                                                                                | 0.00                                                                                | 1.10                                                                                |
| Avail Cap(c_a), veh/h                                                                              | 322                                                                               | 538                                                                               | 452                                                                               | 371                                                                               | 0                                                                                 | 527                                                                               | 346                                                                               | 1062                                                                              | 1091                                                                              | 575                                                                                 | 0                                                                                   | 868                                                                                 |
| HCM Platoon Ratio                                                                                  | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.33                                                                              | 0.33                                                                              | 0.33                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)                                                                                 | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.75                                                                                | 0.00                                                                                | 0.75                                                                                |
| Uniform Delay (d), s/veh                                                                           | 48.0                                                                              | 41.1                                                                              | 41.3                                                                              | 52.5                                                                              | 0.0                                                                               | 43.1                                                                              | 52.9                                                                              | 24.9                                                                              | 24.9                                                                              | 20.6                                                                                | 0.0                                                                                 | 2.7                                                                                 |
| Incr Delay (d2), s/veh                                                                             | 0.1                                                                               | 0.2                                                                               | 0.3                                                                               | 6.1                                                                               | 0.0                                                                               | 0.5                                                                               | 0.2                                                                               | 0.3                                                                               | 0.3                                                                               | 0.1                                                                                 | 0.0                                                                                 | 58.4                                                                                |
| Initial Q Delay(d3), s/veh                                                                         | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln                                                                           | 1.1                                                                               | 3.6                                                                               | 3.4                                                                               | 12.4                                                                              | 0.0                                                                               | 7.8                                                                               | 3.7                                                                               | 8.7                                                                               | 9.0                                                                               | 2.0                                                                                 | 0.0                                                                                 | 22.2                                                                                |
| Unsig. Movement Delay, s/veh                                                                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh                                                                              | 48.1                                                                              | 41.3                                                                              | 41.5                                                                              | 58.6                                                                              | 0.0                                                                               | 43.6                                                                              | 53.2                                                                              | 25.2                                                                              | 25.2                                                                              | 20.7                                                                                | 0.0                                                                                 | 61.1                                                                                |
| LnGrp LOS                                                                                          | D                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 |                                                                                   | D                                                                                 | D                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   |                                                                                     | F                                                                                   |
| Approach Vol, veh/h                                                                                | 164                                                                               |                                                                                   |                                                                                   | 373                                                                               |                                                                                   |                                                                                   | 402                                                                               |                                                                                   |                                                                                   | 1018                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh                                                                              | 42.3                                                                              |                                                                                   |                                                                                   | 52.5                                                                              |                                                                                   |                                                                                   | 29.6                                                                              |                                                                                   |                                                                                   | 58.6                                                                                |                                                                                     |                                                                                     |
| Approach LOS                                                                                       | D                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | E                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs                                                                               | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                   | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s                                                                           | 9.6                                                                               | 88.6                                                                              |                                                                                   | 36.8                                                                              | 28.2                                                                              | 70.0                                                                              |                                                                                   | 36.8                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s                                                                            | 5.1                                                                               | * 5.3                                                                             |                                                                                   | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s                                                                        | 14.9                                                                              | * 65                                                                              |                                                                                   | 40.1                                                                              | 14.7                                                                              | 64.8                                                                              |                                                                                   | 40.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s                                                                        | 14.8                                                                              | 12.8                                                                              |                                                                                   | 13.7                                                                              | 2.5                                                                               | 66.8                                                                              |                                                                                   | 30.7                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s                                                                            | 0.1                                                                               | 2.2                                                                               |                                                                                   | 0.7                                                                               | 0.1                                                                               | 0.0                                                                               |                                                                                   | 1.2                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh                                                                       | 50.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                                                                                        | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Notes                                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| User approved pedestrian interval to be less than phase max green.                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier. |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |



## HCM 7th TWSC

## 1: Rock Blvd &amp; 15th St

| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 2.3                                                                               |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations         |  |  |  |      |  |  |
| Traffic Vol, veh/h          | 10                                                                                | 130                                                                               | 880                                                                               | 20   | 130                                                                               | 460                                                                               |
| Future Vol, veh/h           | 10                                                                                | 130                                                                               | 880                                                                               | 20   | 130                                                                               | 460                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 7    | 0                                                                                 | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized              | -                                                                                 | Stop                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length              | 0                                                                                 | 0                                                                                 | -                                                                                 | -    | 75                                                                                | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor            | 98                                                                                | 98                                                                                | 98                                                                                | 98   | 98                                                                                | 98                                                                                |
| Heavy Vehicles, %           | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                   | 10                                                                                | 133                                                                               | 898                                                                               | 20   | 133                                                                               | 469                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All        | 1650                                                                              | 466                                                                               | 0                                                                                 | 0    | 925                                                                               | 0                                                                                 |
| Stage 1                     | 915                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 735                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy               | 6.63                                                                              | 6.93                                                                              | -                                                                                 | -    | 4.13                                                                              | -                                                                                 |
| Critical Hdwy Stg 1         | 5.83                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2         | 5.43                                                                              | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy              | 3.519                                                                             | 3.319                                                                             | -                                                                                 | -    | 2.219                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver          | 99                                                                                | 544                                                                               | -                                                                                 | -    | 736                                                                               | -                                                                                 |
| Stage 1                     | 352                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 473                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver          | 80                                                                                | 540                                                                               | -                                                                                 | -    | 731                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver          | 80                                                                                | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                     | 349                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                     | 388                                                                               | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v16.85 |                                                                                   | 0                                                                                 | 2.43                                                                              |      |                                                                                   |                                                                                   |
| HCM LOS                     | C                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 80 540                                                                          | 731                                                                               | -    |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.127 0.246                                                                     | 0.181                                                                             | -    |                                                                                   |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 56.3 13.8                                                                       | 11                                                                                | -    |                                                                                   |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - F B                                                                             | B                                                                                 | -    |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 0.4 1                                                                           | 0.7                                                                               | -    |                                                                                   |                                                                                   |

## HCM 7th Signalized Intersection Summary

## 2: Rock Blvd &amp; C St

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 5                                                                                 | 1                                                                                 | 5                                                                                 | 40                                                                                | 5                                                                                 | 20                                                                                | 5                                                                                   | 870                                                                                 | 40                                                                                  | 20                                                                                  | 560                                                                                 | 5                                                                                   |
| Future Volume (veh/h)        | 5                                                                                 | 1                                                                                 | 5                                                                                 | 40                                                                                | 5                                                                                 | 20                                                                                | 5                                                                                   | 870                                                                                 | 40                                                                                  | 20                                                                                  | 560                                                                                 | 5                                                                                   |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.97                                                                              | 0.97                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                                |                                                                                     | 0.98                                                                                | 1.00                                                                                |                                                                                     | 0.98                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 5                                                                                 | 1                                                                                 | 4                                                                                 | 41                                                                                | 5                                                                                 | 15                                                                                | 5                                                                                   | 888                                                                                 | 9                                                                                   | 20                                                                                  | 571                                                                                 | 5                                                                                   |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 72                                                                                | 20                                                                                | 38                                                                                | 135                                                                               | 25                                                                                | 75                                                                                | 692                                                                                 | 2913                                                                                | 1268                                                                                | 553                                                                                 | 1539                                                                                | 13                                                                                  |
| Arrive On Green              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.01                                                                                | 0.82                                                                                | 0.82                                                                                | 0.02                                                                                | 0.83                                                                                | 0.83                                                                                |
| Sat Flow, veh/h              | 584                                                                               | 330                                                                               | 609                                                                               | 1368                                                                              | 406                                                                               | 1217                                                                              | 1781                                                                                | 3554                                                                                | 1546                                                                                | 1781                                                                                | 1851                                                                                | 16                                                                                  |
| Grp Volume(v), veh/h         | 10                                                                                | 0                                                                                 | 0                                                                                 | 41                                                                                | 0                                                                                 | 20                                                                                | 5                                                                                   | 888                                                                                 | 9                                                                                   | 20                                                                                  | 0                                                                                   | 576                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1523                                                                              | 0                                                                                 | 0                                                                                 | 1368                                                                              | 0                                                                                 | 1623                                                                              | 1781                                                                                | 1777                                                                                | 1546                                                                                | 1781                                                                                | 0                                                                                   | 1867                                                                                |
| Q Serve(g_s), s              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 3.3                                                                               | 0.0                                                                               | 1.8                                                                               | 0.1                                                                                 | 9.0                                                                                 | 0.2                                                                                 | 0.3                                                                                 | 0.0                                                                                 | 11.3                                                                                |
| Cycle Q Clear(g_c), s        | 0.8                                                                               | 0.0                                                                               | 0.0                                                                               | 4.1                                                                               | 0.0                                                                               | 1.8                                                                               | 0.1                                                                                 | 9.0                                                                                 | 0.2                                                                                 | 0.3                                                                                 | 0.0                                                                                 | 11.3                                                                                |
| Prop In Lane                 | 0.50                                                                              |                                                                                   | 0.40                                                                              | 1.00                                                                              |                                                                                   | 0.75                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.01                                                                                |
| Lane Grp Cap(c), veh/h       | 130                                                                               | 0                                                                                 | 0                                                                                 | 135                                                                               | 0                                                                                 | 101                                                                               | 692                                                                                 | 2913                                                                                | 1268                                                                                | 553                                                                                 | 0                                                                                   | 1553                                                                                |
| V/C Ratio(X)                 | 0.08                                                                              | 0.00                                                                              | 0.00                                                                              | 0.30                                                                              | 0.00                                                                              | 0.20                                                                              | 0.01                                                                                | 0.30                                                                                | 0.01                                                                                | 0.04                                                                                | 0.00                                                                                | 0.37                                                                                |
| Avail Cap(c_a), veh/h        | 580                                                                               | 0                                                                                 | 0                                                                                 | 552                                                                               | 0                                                                                 | 596                                                                               | 801                                                                                 | 2913                                                                                | 1268                                                                                | 641                                                                                 | 0                                                                                   | 1553                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 66.4                                                                              | 0.0                                                                               | 0.0                                                                               | 67.8                                                                              | 0.0                                                                               | 66.8                                                                              | 2.6                                                                                 | 3.2                                                                                 | 2.4                                                                                 | 2.3                                                                                 | 0.0                                                                                 | 3.1                                                                                 |
| Incr Delay (d2), s/veh       | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 1.3                                                                               | 0.0                                                                               | 1.0                                                                               | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.7                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 0.7                                                                               | 0.0                                                                               | 0.0                                                                               | 2.8                                                                               | 0.0                                                                               | 1.4                                                                               | 0.0                                                                                 | 5.1                                                                                 | 0.1                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 6.7                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 66.6                                                                              | 0.0                                                                               | 0.0                                                                               | 69.1                                                                              | 0.0                                                                               | 67.8                                                                              | 2.6                                                                                 | 3.5                                                                                 | 2.5                                                                                 | 2.3                                                                                 | 0.0                                                                                 | 3.8                                                                                 |
| LnGrp LOS                    | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   | E                                                                                 | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |                                                                                     | A                                                                                   |
| Approach Vol, veh/h          | 10                                                                                |                                                                                   |                                                                                   | 61                                                                                |                                                                                   |                                                                                   | 902                                                                                 |                                                                                     |                                                                                     | 596                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 66.6                                                                              |                                                                                   |                                                                                   | 68.7                                                                              |                                                                                   |                                                                                   | 3.5                                                                                 |                                                                                     |                                                                                     | 3.7                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.6                                                                               | 128.2                                                                             |                                                                                   | 14.2                                                                              | 5.8                                                                               | 130.0                                                                             |                                                                                     | 14.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.8                                                                               | 5.2                                                                               |                                                                                   | 4.9                                                                               | 4.9                                                                               | 5.2                                                                               |                                                                                     | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.2                                                                              | 69.8                                                                              |                                                                                   | 55.1                                                                              | 10.1                                                                              | 69.8                                                                              |                                                                                     | 55.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.3                                                                               | 11.0                                                                              |                                                                                   | 2.8                                                                               | 2.1                                                                               | 13.3                                                                              |                                                                                     | 6.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 8.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 4.5                                                                               |                                                                                     | 0.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 6.5                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## HCM 7th Signalized Intersection Summary

## 3: Victorian Ave &amp; Rock Blvd

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 60                                                                                | 160                                                                               | 100                                                                               | 240                                                                               | 210                                                                               | 40                                                                                | 130                                                                               | 810                                                                               | 80                                                                                | 30                                                                                  | 540                                                                                 | 40                                                                                  |
| Future Volume (veh/h)        | 60                                                                                | 160                                                                               | 100                                                                               | 240                                                                               | 210                                                                               | 40                                                                                | 130                                                                               | 810                                                                               | 80                                                                                | 30                                                                                  | 540                                                                                 | 40                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 0.99                                                                              |                                                                                   | 0.98                                                                              | 0.99                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                                |                                                                                     | 0.97                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                              | 1856                                                                                | 1856                                                                                | 1856                                                                                |
| Adj Flow Rate, veh/h         | 61                                                                                | 163                                                                               | 51                                                                                | 245                                                                               | 214                                                                               | 29                                                                                | 133                                                                               | 827                                                                               | 58                                                                                | 31                                                                                  | 551                                                                                 | 29                                                                                  |
| Peak Hour Factor             | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                              | 0.98                                                                                | 0.98                                                                                | 0.98                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                 | 3                                                                                   | 3                                                                                   | 3                                                                                   |
| Cap, veh/h                   | 227                                                                               | 237                                                                               | 196                                                                               | 329                                                                               | 348                                                                               | 47                                                                                | 286                                                                               | 1548                                                                              | 109                                                                               | 270                                                                                 | 754                                                                                 | 40                                                                                  |
| Arrive On Green              | 0.04                                                                              | 0.13                                                                              | 0.13                                                                              | 0.13                                                                              | 0.22                                                                              | 0.22                                                                              | 0.06                                                                              | 0.46                                                                              | 0.46                                                                              | 0.02                                                                                | 0.43                                                                                | 0.43                                                                                |
| Sat Flow, veh/h              | 1767                                                                              | 1856                                                                              | 1535                                                                              | 1767                                                                              | 1594                                                                              | 216                                                                               | 1767                                                                              | 3335                                                                              | 234                                                                               | 1767                                                                                | 1744                                                                                | 92                                                                                  |
| Grp Volume(v), veh/h         | 61                                                                                | 163                                                                               | 51                                                                                | 245                                                                               | 0                                                                                 | 243                                                                               | 133                                                                               | 437                                                                               | 448                                                                               | 31                                                                                  | 0                                                                                   | 580                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1767                                                                              | 1856                                                                              | 1535                                                                              | 1767                                                                              | 0                                                                                 | 1809                                                                              | 1767                                                                              | 1763                                                                              | 1806                                                                              | 1767                                                                                | 0                                                                                   | 1836                                                                                |
| Q Serve(g_s), s              | 4.5                                                                               | 12.6                                                                              | 4.5                                                                               | 17.6                                                                              | 0.0                                                                               | 18.2                                                                              | 6.1                                                                               | 26.5                                                                              | 26.5                                                                              | 1.5                                                                                 | 0.0                                                                                 | 39.3                                                                                |
| Cycle Q Clear(g_c), s        | 4.5                                                                               | 12.6                                                                              | 4.5                                                                               | 17.6                                                                              | 0.0                                                                               | 18.2                                                                              | 6.1                                                                               | 26.5                                                                              | 26.5                                                                              | 1.5                                                                                 | 0.0                                                                                 | 39.3                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.12                                                                              | 1.00                                                                              |                                                                                   | 0.13                                                                              | 1.00                                                                                |                                                                                     | 0.05                                                                                |
| Lane Grp Cap(c), veh/h       | 227                                                                               | 237                                                                               | 196                                                                               | 329                                                                               | 0                                                                                 | 395                                                                               | 286                                                                               | 818                                                                               | 838                                                                               | 270                                                                                 | 0                                                                                   | 793                                                                                 |
| V/C Ratio(X)                 | 0.27                                                                              | 0.69                                                                              | 0.26                                                                              | 0.74                                                                              | 0.00                                                                              | 0.62                                                                              | 0.47                                                                              | 0.53                                                                              | 0.53                                                                              | 0.11                                                                                | 0.00                                                                                | 0.73                                                                                |
| Avail Cap(c_a), veh/h        | 421                                                                               | 372                                                                               | 308                                                                               | 339                                                                               | 0                                                                                 | 395                                                                               | 362                                                                               | 818                                                                               | 838                                                                               | 461                                                                                 | 0                                                                                   | 793                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.61                                                                              | 0.61                                                                              | 0.61                                                                              | 0.94                                                                                | 0.00                                                                                | 0.94                                                                                |
| Uniform Delay (d), s/veh     | 53.9                                                                              | 62.6                                                                              | 59.1                                                                              | 47.1                                                                              | 0.0                                                                               | 52.9                                                                              | 27.1                                                                              | 28.6                                                                              | 28.6                                                                              | 24.2                                                                                | 0.0                                                                                 | 35.4                                                                                |
| Incr Delay (d2), s/veh       | 0.6                                                                               | 3.6                                                                               | 0.7                                                                               | 8.4                                                                               | 0.0                                                                               | 2.8                                                                               | 0.7                                                                               | 1.5                                                                               | 1.5                                                                               | 0.2                                                                                 | 0.0                                                                                 | 5.5                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 8.7                                                                               | 10.3                                                                              | 3.2                                                                               | 13.4                                                                              | 0.0                                                                               | 13.5                                                                              | 4.7                                                                               | 16.0                                                                              | 16.3                                                                              | 1.1                                                                                 | 0.0                                                                                 | 25.7                                                                                |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 54.5                                                                              | 66.1                                                                              | 59.8                                                                              | 55.4                                                                              | 0.0                                                                               | 55.8                                                                              | 27.8                                                                              | 30.2                                                                              | 30.1                                                                              | 24.4                                                                                | 0.0                                                                                 | 40.9                                                                                |
| LnGrp LOS                    | D                                                                                 | E                                                                                 | E                                                                                 | E                                                                                 |                                                                                   | E                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   |                                                                                     | D                                                                                   |
| Approach Vol, veh/h          | 275                                                                               |                                                                                   |                                                                                   | 488                                                                               |                                                                                   |                                                                                   | 1018                                                                              |                                                                                   |                                                                                   | 611                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 62.4                                                                              |                                                                                   |                                                                                   | 55.6                                                                              |                                                                                   |                                                                                   | 29.8                                                                              |                                                                                   |                                                                                   | 40.1                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                 | 8                                                                                 |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.7                                                                               | 74.8                                                                              | 24.2                                                                              | 24.0                                                                              | 13.6                                                                              | 70.0                                                                              | 10.5                                                                              | 37.6                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 5.1                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               | 5.3                                                                               | 5.2                                                                               | 4.5                                                                               | 4.9                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.9                                                                              | 59.8                                                                              | 20.5                                                                              | 30.1                                                                              | 14.7                                                                              | 64.8                                                                              | 22.5                                                                              | 28.1                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I), s  | 13.5                                                                              | 28.5                                                                              | 19.6                                                                              | 14.6                                                                              | 8.1                                                                               | 41.3                                                                              | 6.5                                                                               | 20.2                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 6.6                                                                               | 0.1                                                                               | 0.9                                                                               | 0.2                                                                               | 4.1                                                                               | 0.1                                                                               | 0.8                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 41.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |



## **REGIONAL TRANSPORTATION COMMISSION**

*Metropolitan Planning • Public Transportation & Operations • Engineering & Construction*

Metropolitan Planning Organization of Washoe County, Nevada

**MEETING DATE:** October 7, 2026

**AGENDA ITEM 5.4**

To: Citizens Multimodal Advisory Committee

From: Marquis Williams, Senior Transportation Planner

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### **FOR INFORMATION AND DISCUSSION**

Receive a presentation on the draft Sun Valley/Panther Valley & Meadowood/Hidden Valley Neighborhood Network Plans.

### **BACKGROUND AND DISCUSSION**

The Sun Valley/Panther Valley & Meadowood/Hidden Valley Neighborhood Network Plans (NNPs) kicked off in September 2025 based on a recommendation from the Active Transportation Plan (ATP), approved in September 2024, and the Active Transportation Technical Advisory Committee. The NNPs are meant to increase the number of walking and biking trips within the two neighborhood areas by improving safety and comfort along key corridors. The Plans recommend traditional bicycle and pedestrian infrastructure improvements as well as low-cost, quick-build improvements. The 2024 ATP recommended, and these NNPs support, before and after data collection to measure the effectiveness of the improvements in the creation of a comprehensive and responsive active transportation network accessible to a broader cross-section of our community.

The two NNPs recommend a combined for quick-build style transportation improvements. In total, 9.6 miles of roadways are recommended for improvements across the neighborhoods, including 4.6 miles in Sun Valley/Panther Valley and 5 miles in Meadowood/Hidden Valley. The NNPs include cutsheets for each corridor project recommendation, detailing the project extents, approximate cost, potential intersection enhancements, and a conceptual cross-section. Based on funding availability and construction feasibility, many recommended quick-build projects are expected to be implemented using funds from the RTC Active Transportation Program.

The two NNPs will be available for public review and comment at [rtcwashoe.com/neighborhood](http://rtcwashoe.com/neighborhood) starting on October 1. The draft Plans are scheduled to be presented at the October 16, 2026 RTC Board meeting with anticipated approval of the final Plans at the November 20, 2026 Board meeting.



## REGIONAL TRANSPORTATION COMMISSION

*Metropolitan Planning • Public Transportation & Operations • Engineering & Construction*

Metropolitan Planning Organization of Washoe County, Nevada

**MEETING DATE:** October 7, 2026

**AGENDA ITEM 5.5**

To: Citizens Multimodal Advisory Committee

From: Marquis Williams, Senior Transportation Planner

### **RECOMMENDED ACTION**

Approve the election of a Chair and Vice-Chair to serve from October 7, 2026, until June 30, 2027.

### **BACKGROUND AND DISCUSSION**

The Citizens Multimodal Advisory Committee (CMAC) will hold an election to fill the term of the Chair and Vice Chair positions until June 30, 2027, consistent with Section 9c of the “Statement of Purpose and Procedures.”

#### **Position Descriptions:**

**Chair:** The role of the Chair is to lead committee meetings and facilitate discussions in cooperation with RTC staff. In addition to this, they may be asked to assist in coordinating meeting details as needed. The primary responsibility of the Chair is to effectively lead meetings that are time efficient, effective in achieving outcomes, and orderly. They must also be willing to manage the conversations of presenters, committee members, and the public in a courteous, respectful, consistent, and disciplined manner. RTC staff will provide assistance in managing the meetings.

**Vice Chair:** The Vice-Chair will support the Chair’s efforts, and lead meetings and facilitate discussions in the Chair’s absence.

#### **Process:**

The Committee, verbally via roll call, vote to elect a Chair, and then vote to elect a Vice-Chair. Before the voting, members interested in serving as Chair or Vice-Chair will have an opportunity to give a brief statement about their qualifications and reasons for seeking the position.