ROCK
BOULEVARD
CORRIDOR STUDY

RTC



ROCK BOULEVARD
CORRIDOR STUDY

October 2026 (Draft)

GCW
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 (15th 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

Name	Agency/Organization
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
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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



ROCK BOULEVARD CORRIDOR STUDY

Figure 1

Rock Boulevard Corridor Study

Study Area

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.

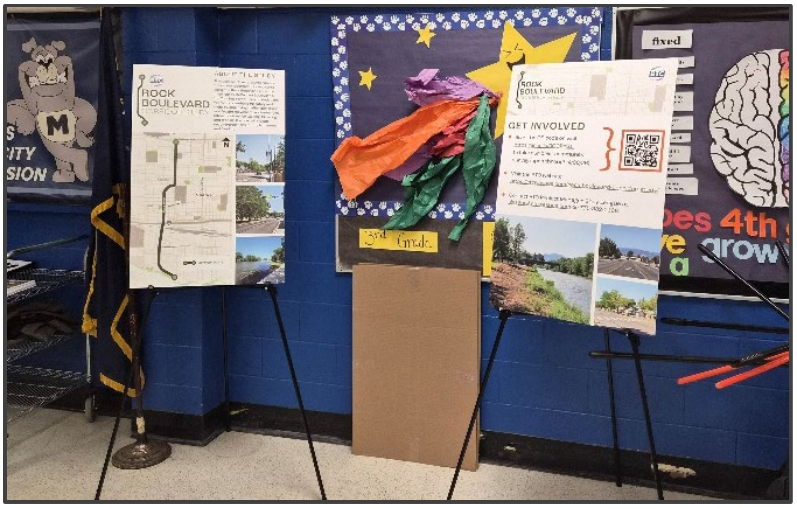


Exhibit 2. Project Information Meeting at Maxwell Elementary

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

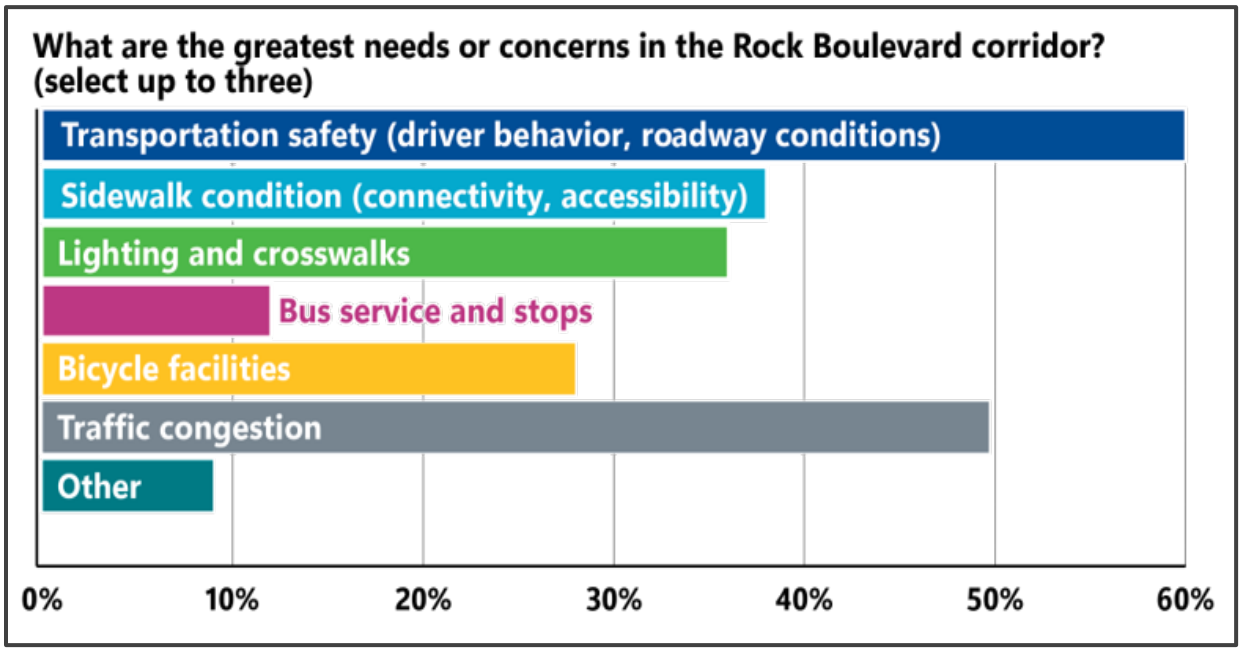


Exhibit 3. Online Survey Results

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.

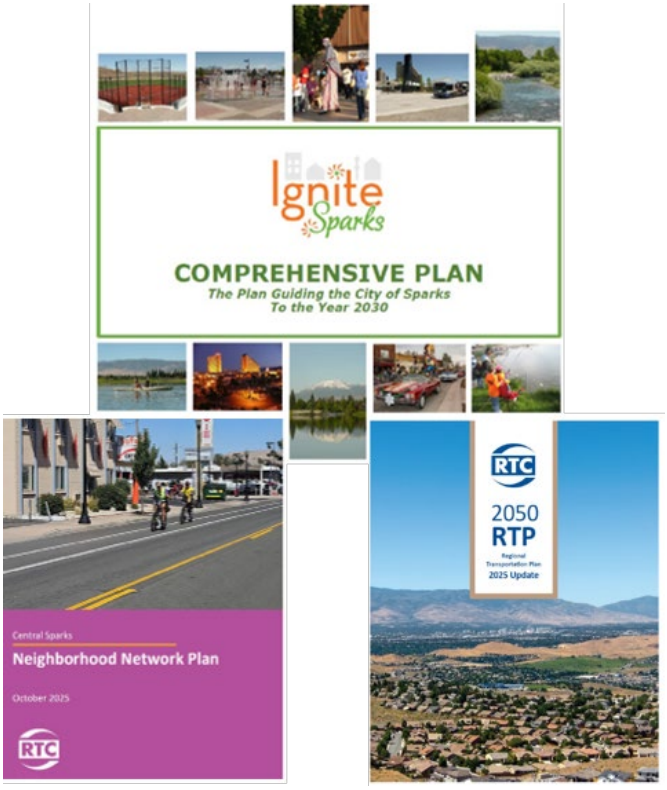


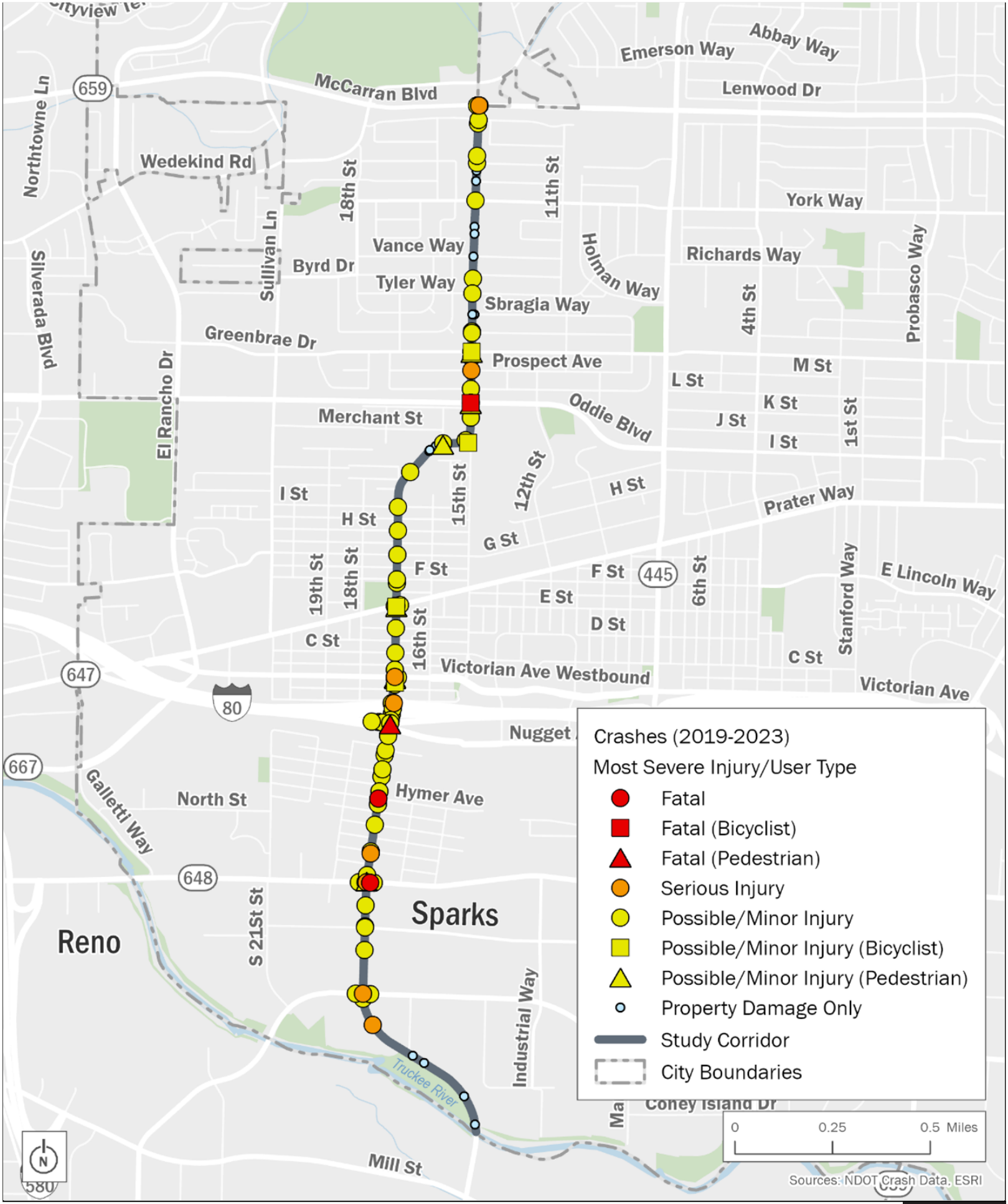
Exhibit 4. Key Planning Documents

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 85th 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 85th 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**.

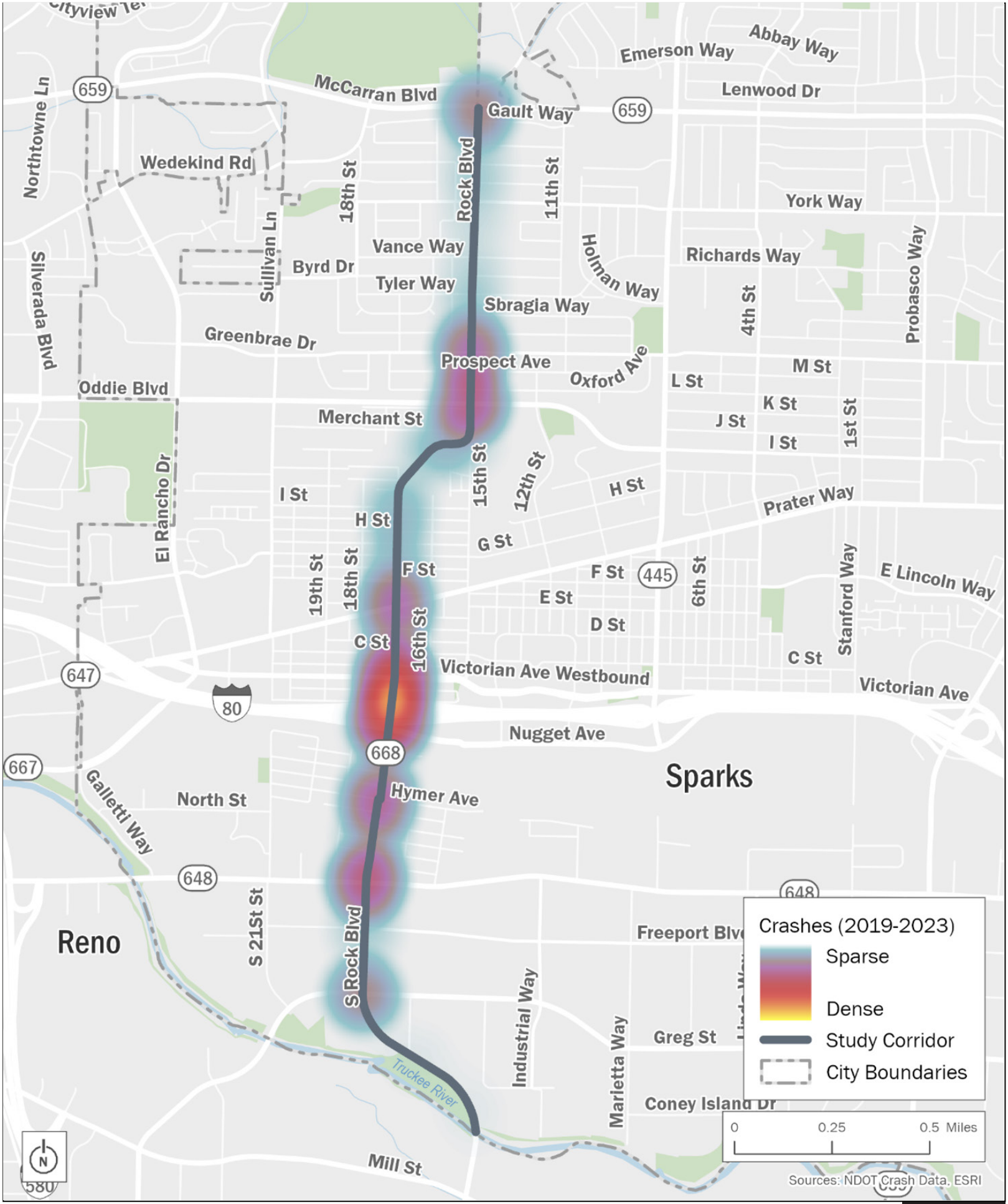


ROCK BOULEVARD CORRIDOR STUDY

Figure 2

Rock Boulevard Corridor Study

Crash Severity Map



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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

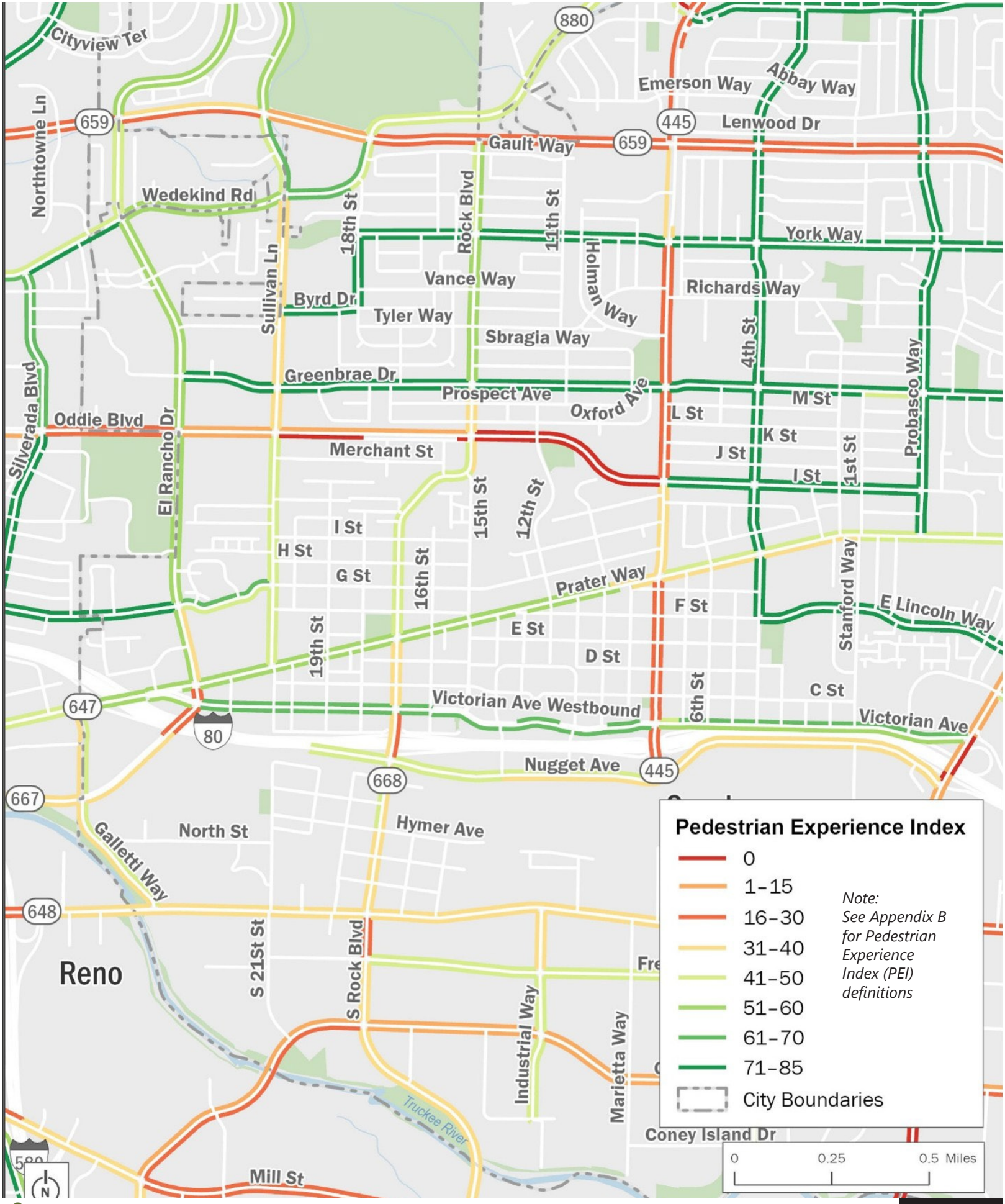
Bicycle facilities are limited along most of Rock Boulevard, with existing bike lanes only provided south of Greg Street near Rock Park. **Figure 5** shows the Bicycle Level of Traffic Stress (BLTS) for the study corridor and surrounding roadways. Most corridor segments on Rock Boulevard are rated Bicycle 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**.

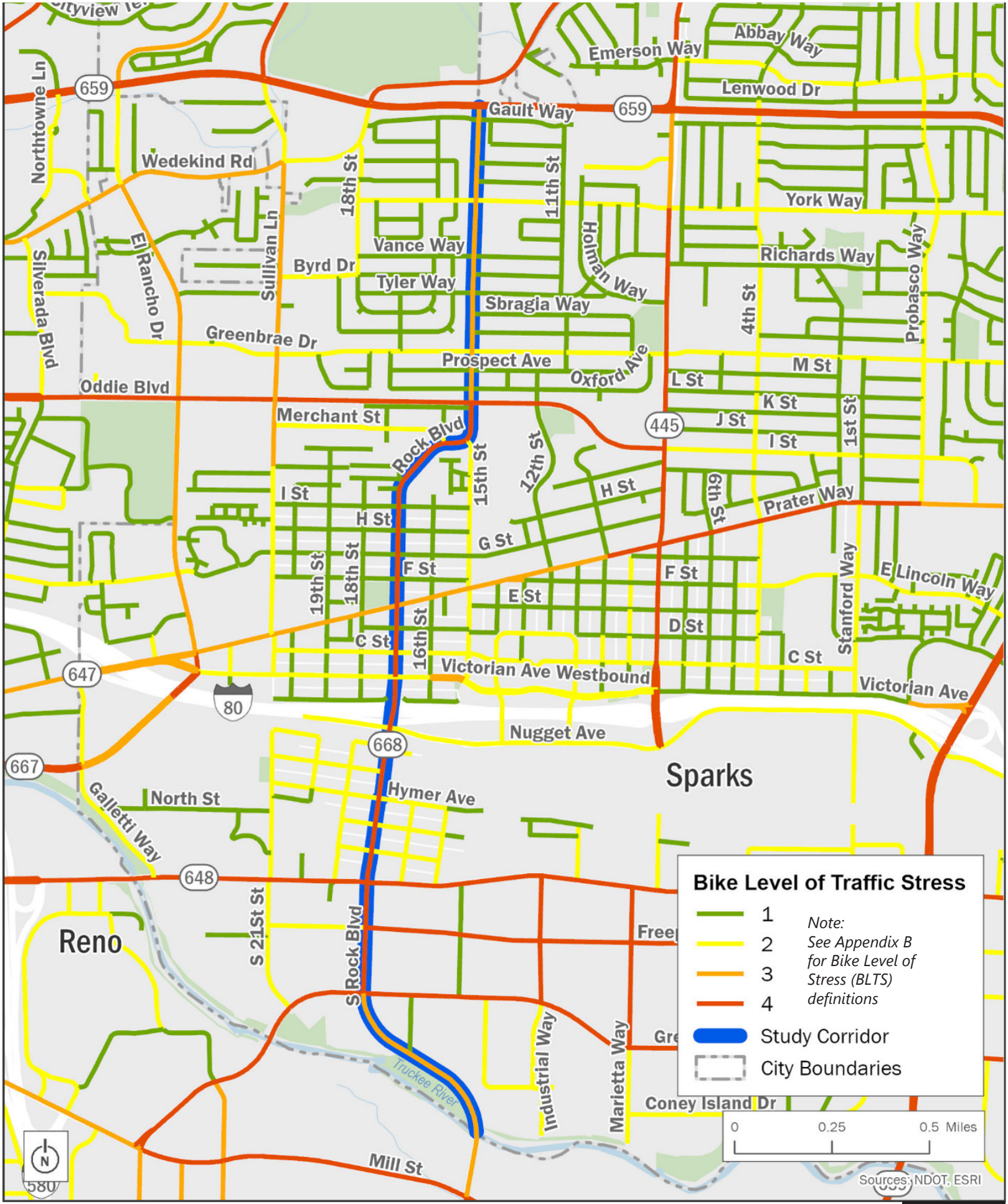


ROCK BOULEVARD CORRIDOR STUDY

Figure 4

Rock Boulevard Corridor Study

Pedestrian Experience Index (PEI)

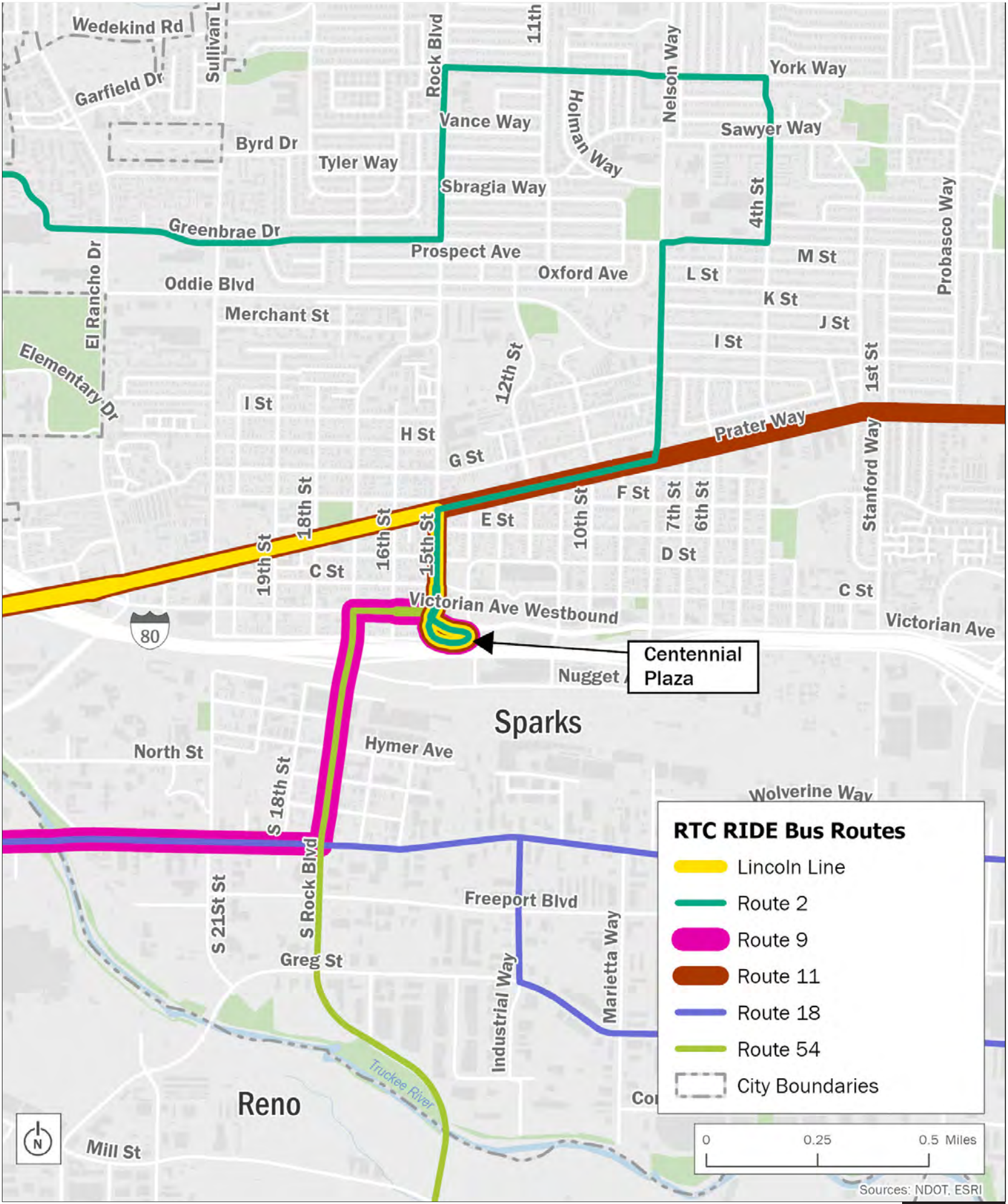


ROCK BOULEVARD CORRIDOR STUDY

Figure 5

Rock Boulevard Corridor Study

Bicycle Level of Traffic Stress (BLTS)



ROCK BOULEVARD CORRIDOR STUDY

Figure 6
Rock Boulevard Corridor Study
Transit Routes

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 / 15th 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)



ROCK BOULEVARD CORRIDOR STUDY

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.

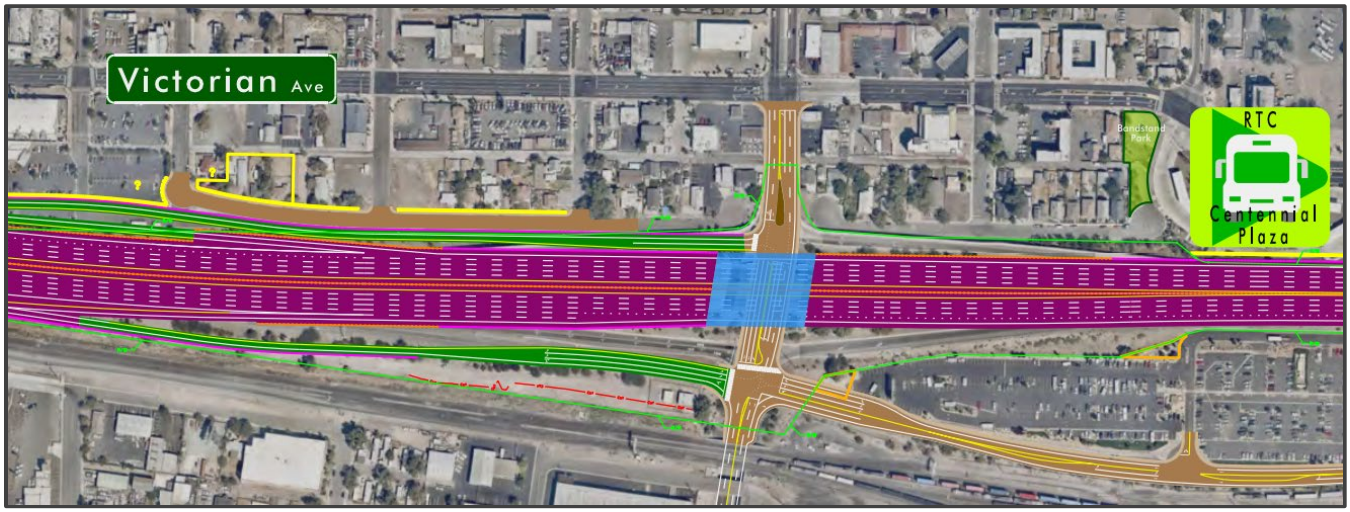
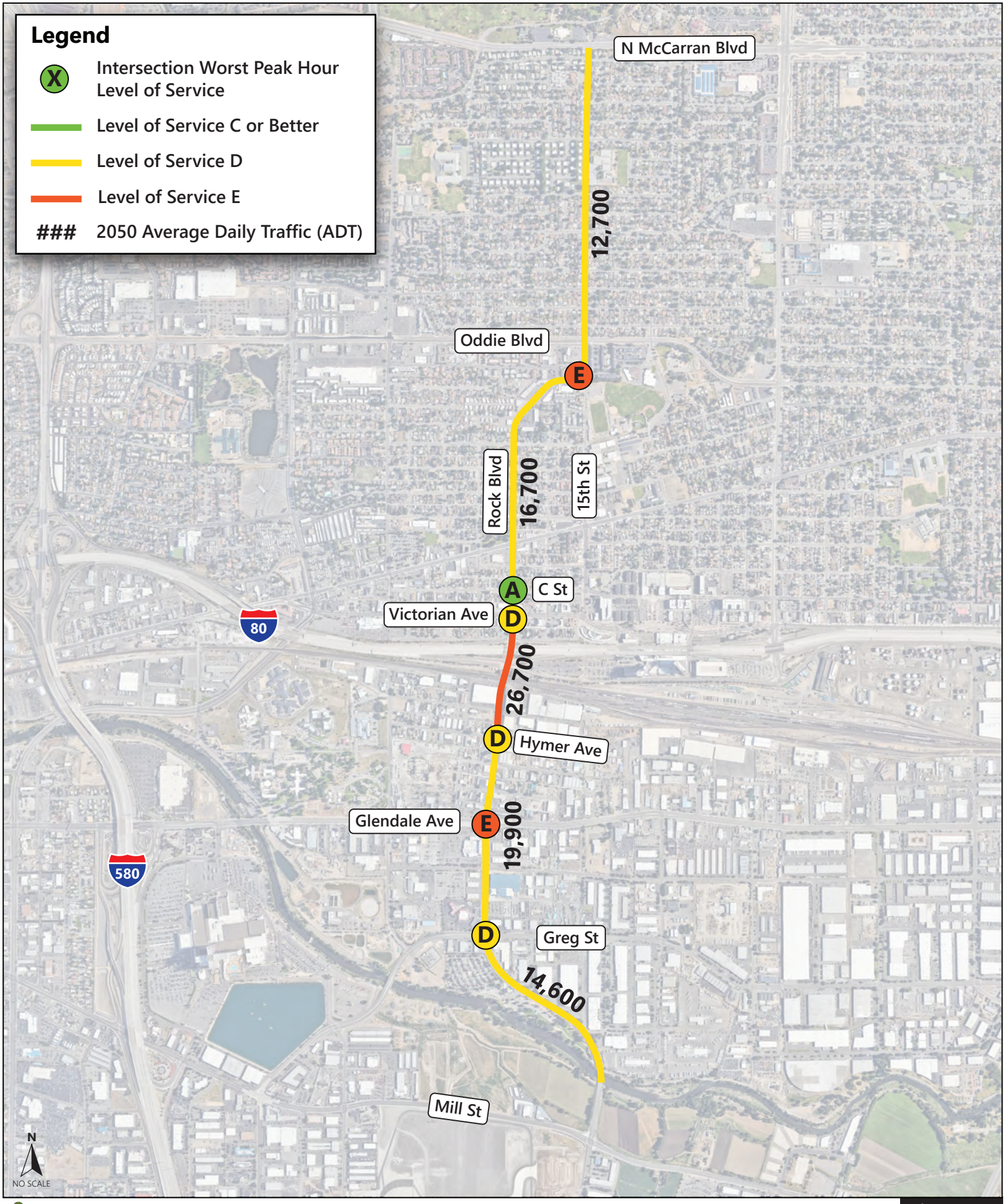


Exhibit 5. NDOT I-80 Preferred Alternative at Rock Blvd

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**.



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.

ROCK BOULEVARD CORRIDOR STUDY

Figure 8
Rock Boulevard Corridor Study
2050 Operations Summary

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

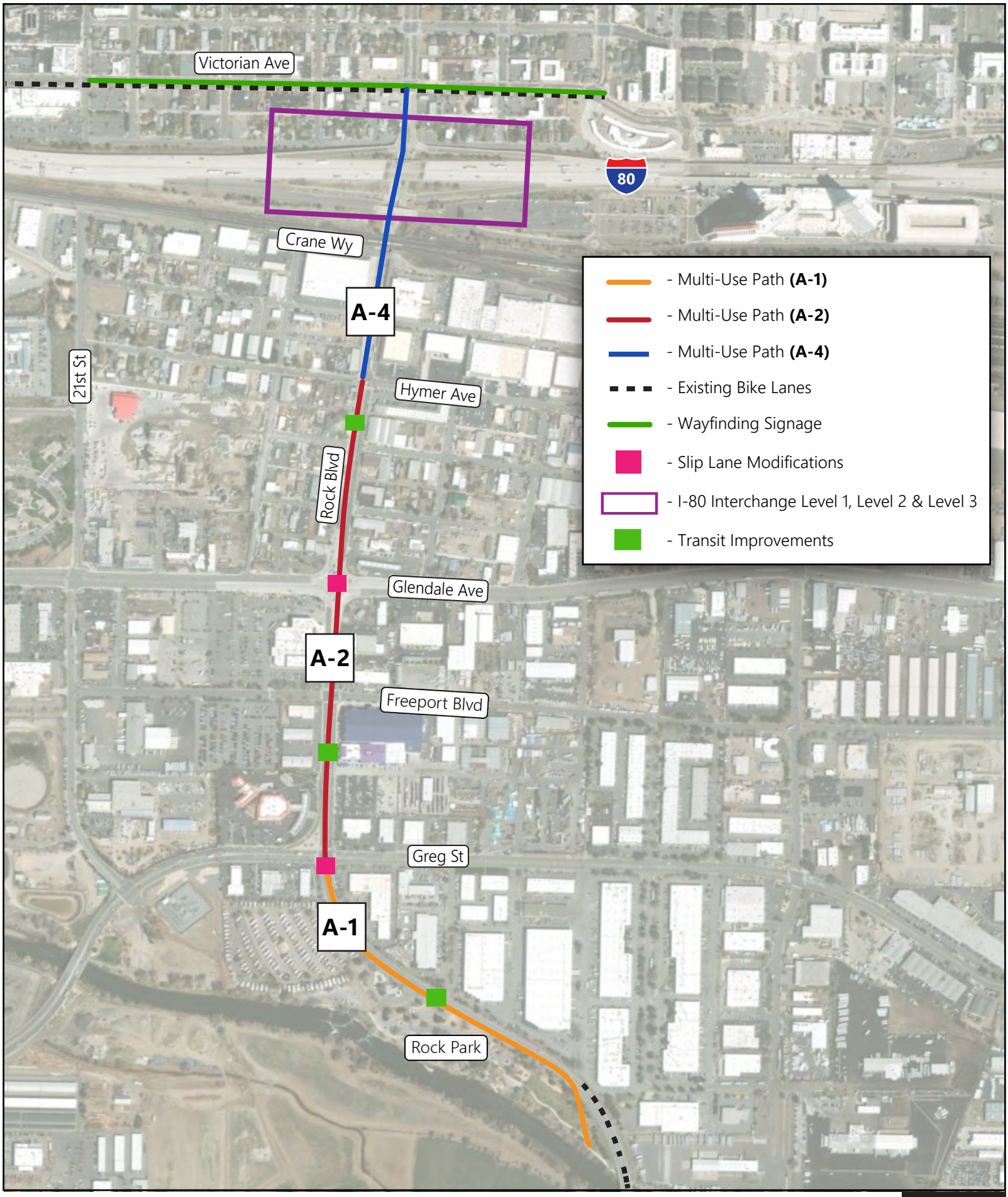
RECOMMENDED IMPROVEMENTS

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**.



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N

NO SCALE

Figure 9

Rock Boulevard Corridor Study

Recommended Alternatives (South of Victorian Ave)

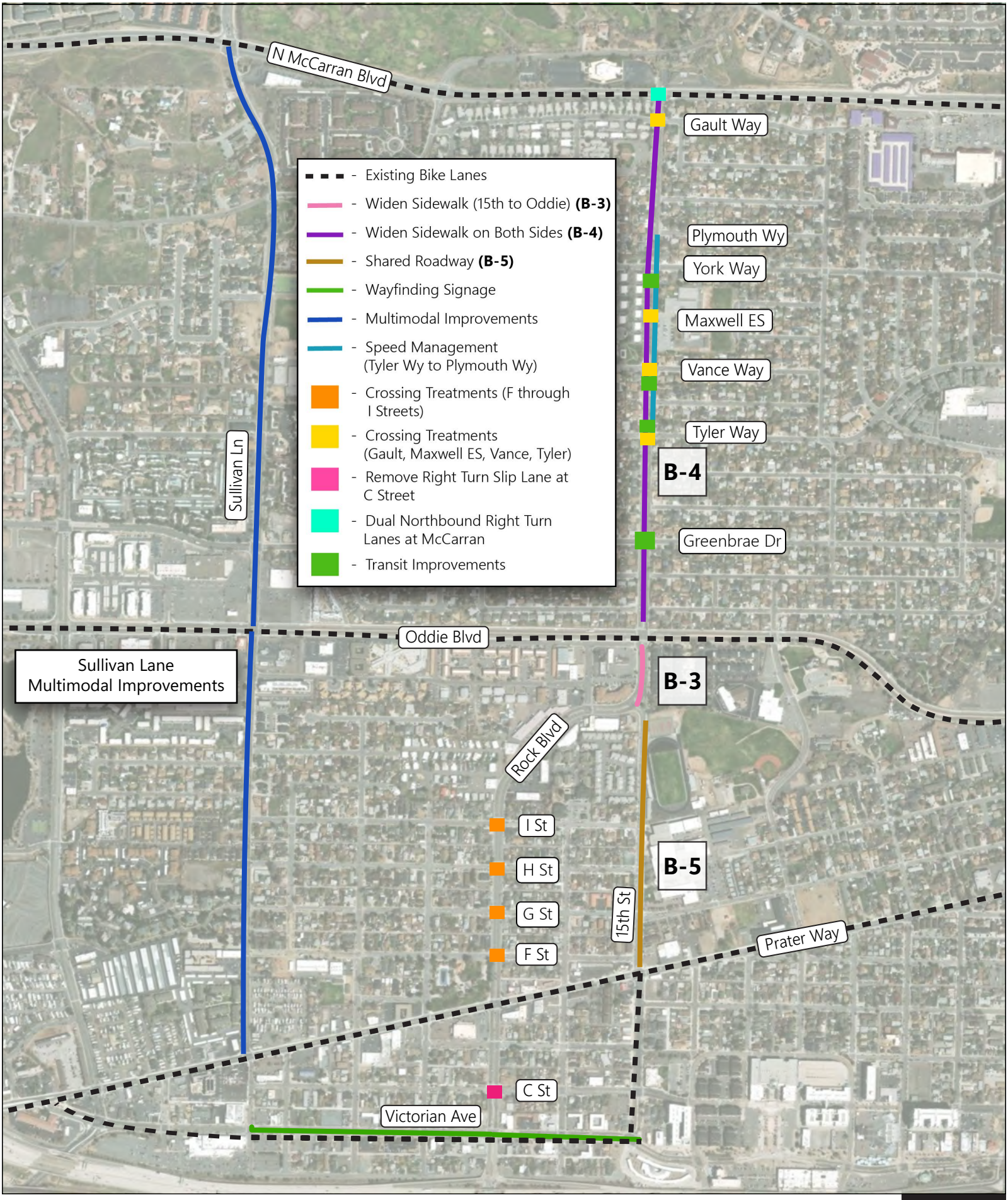


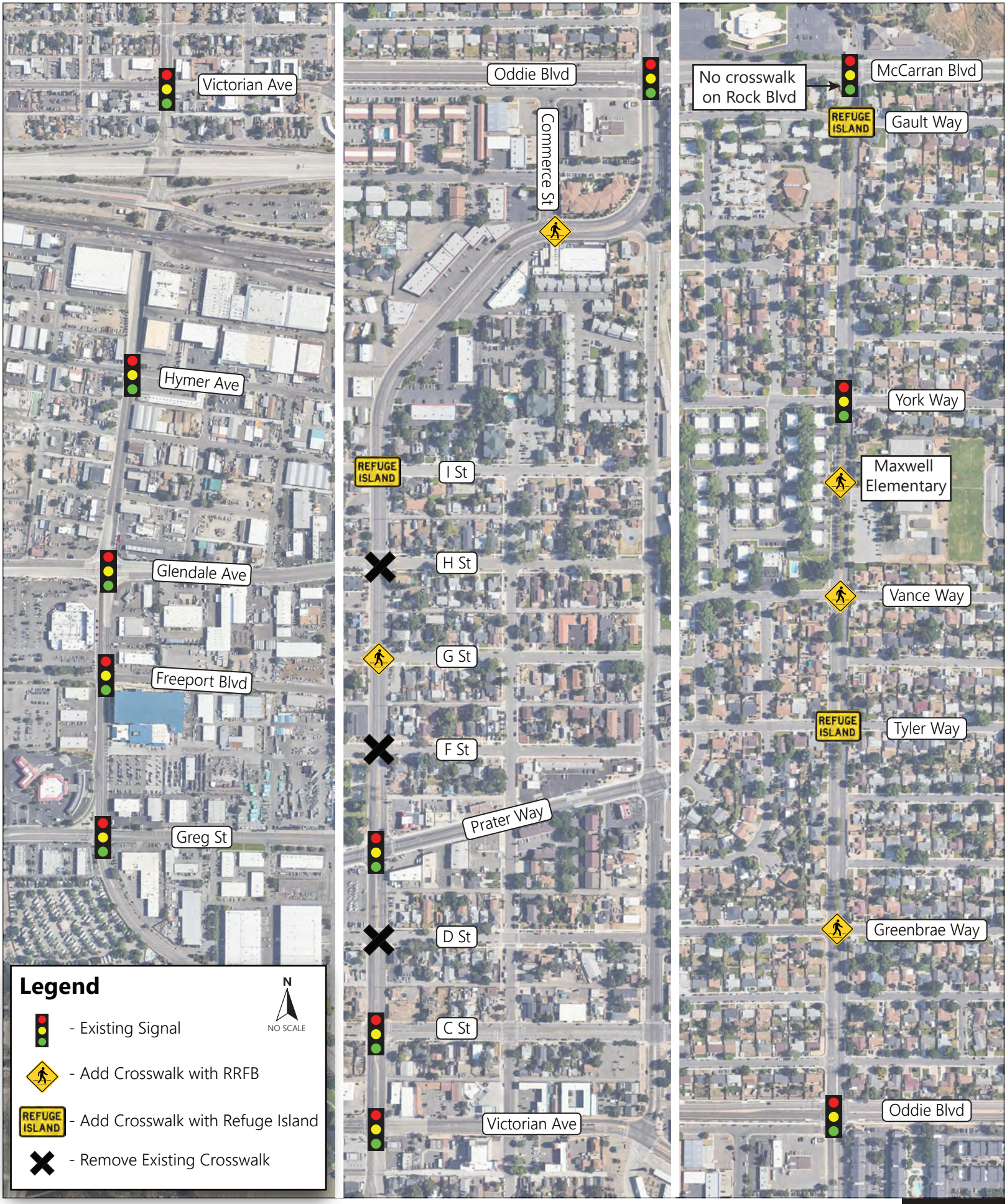
Figure 10

ROCK BOULEVARD CORRIDOR STUDY

N

NO SCALE

Rock Boulevard
Corridor Study
Recommended Alternatives (North of Victorian Ave)



ROCK BOULEVARD CORRIDOR STUDY

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).

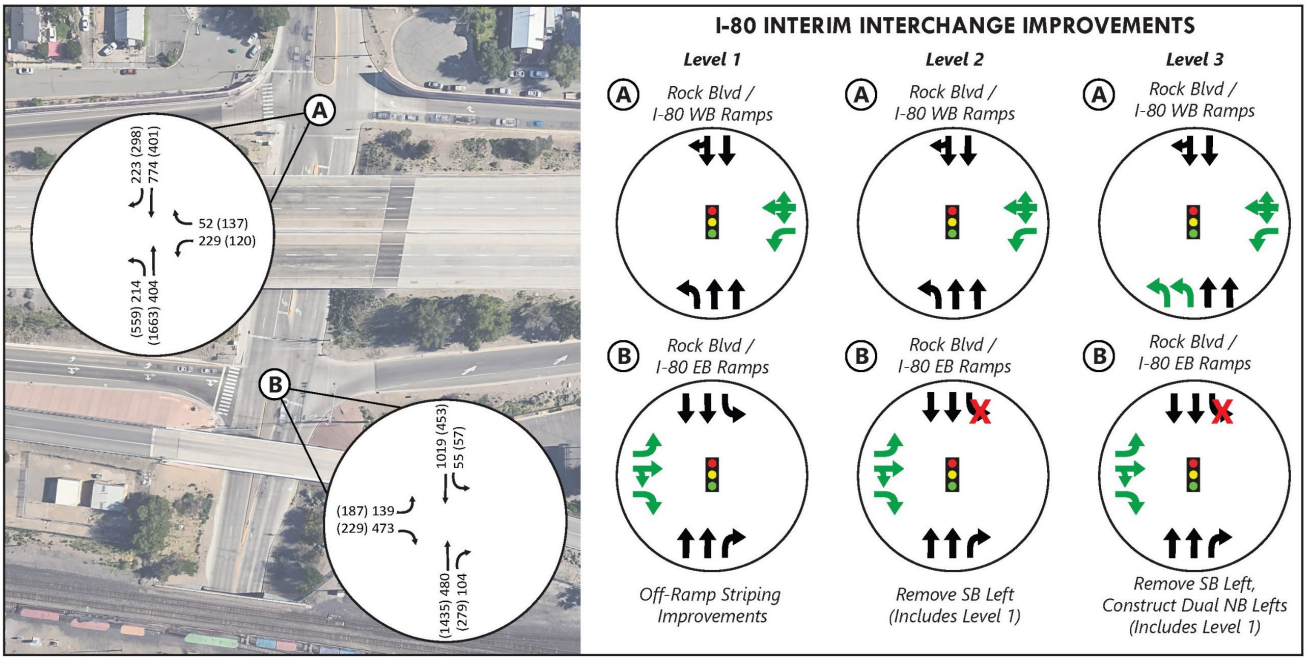


Exhibit 8. Interim I-80 Interchange Improvements

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 15th Street detailed herein are constructed, it is recommended that wayfinding signage be installed to guide cyclists to Sullivan Lane and/or 15th 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 15th Street and/or west to Sullivan Lane to continue north. Wayfinding signage would also be provided for southbound cyclists on Sullivan Lane and/or 15th 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 15th Street between Prater Way and Rock Boulevard is recommended as 15th 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 (15th to Oddie) (Cross-section B-3)

This sidewalk segment on the east side of Rock Boulevard between 15th Street and Oddie Boulevard is highly utilized by students walking between the neighborhoods north of Oddie Boulevard and Sparks High School located south on 15th Street. **Exhibit 10** illustrates a concept for the segment between 15th 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 15th 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 15th Street to Rock Boulevard. A detailed concept is shown in **Figure 12**.

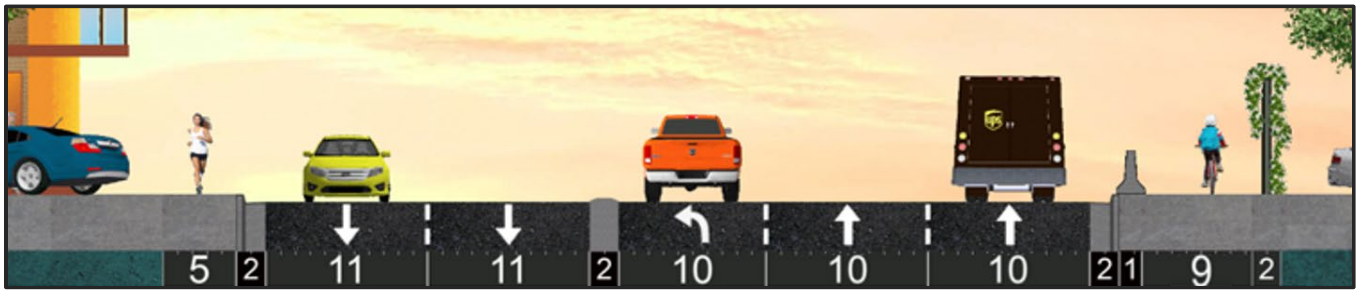


Exhibit 10. Widen Sidewalk (15th to Oddie) (Cross-section B-3)

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.

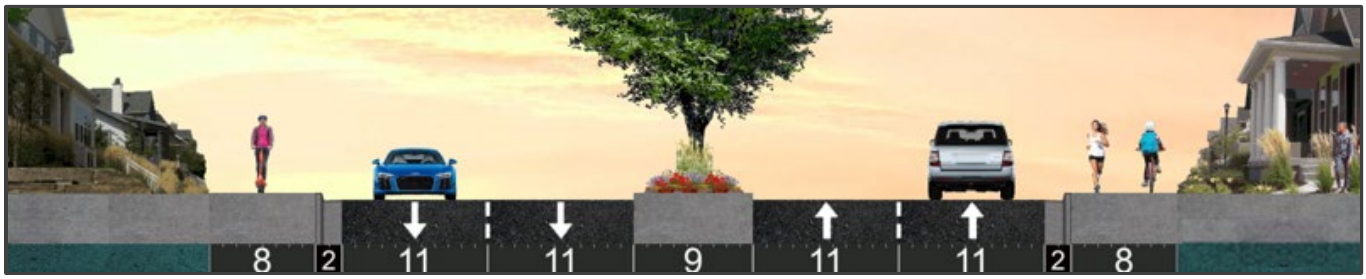


Exhibit 11. Widen Sidewalk Both Sides (Cross-section B-4)



ROCK BOULEVARD CORRIDOR STUDY

N

NO SCALE

Figure 12

Rock Boulevard Corridor Study

Widen Sidewalk (15th to Oddie)

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.

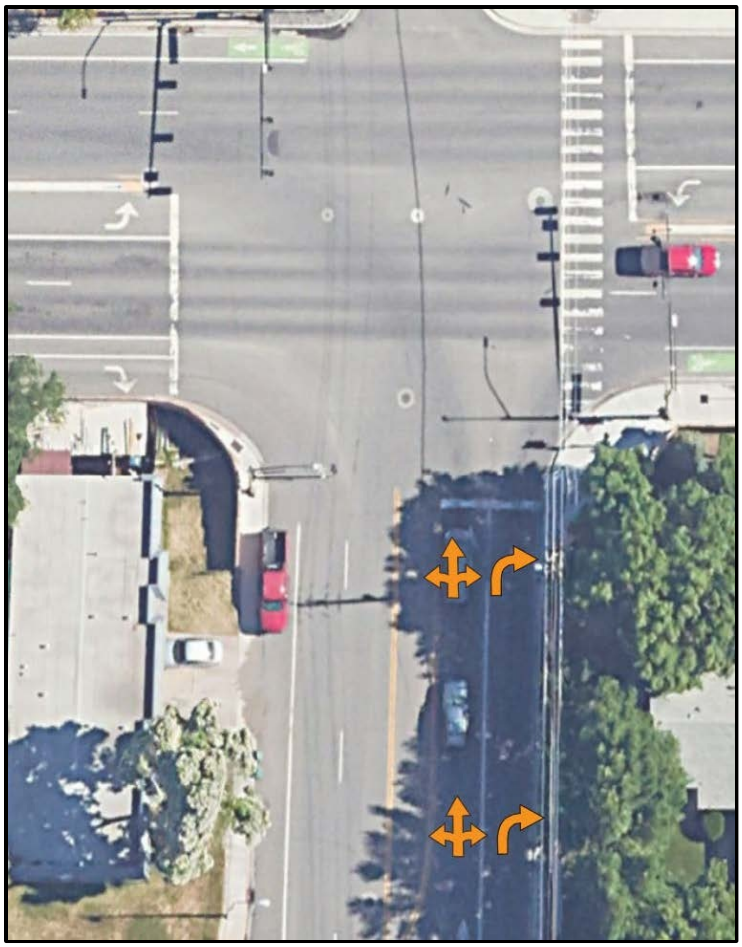


Exhibit 12. Dual Northbound Right Turn Lanes at McCarran

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 (15th 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

Recommended Improvement	Planning Level Estimate
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 (15th 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 Subtotal	***$3,500,000***
Multi-Use Path (A-1, A-2, A-4)	$22,000,000
Slip Lane Modifications	$1,000,000
Multi-Use Path Subtotal	***$23,000,000***
I-80 Interchange Modifications Level 2	$300,000
I-80 Interchange Modifications Level 3	$5,000,000
I-80 Interchange Subtotal	***$5,300,000***
Widen Sidewalk on Both Sides (B-4)	$15,000,000
Widen Sidewalk Subtotal	***$15,000,000***
Total Planning Level Cost Estimate	**$46,800,000**

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

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 15th 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.

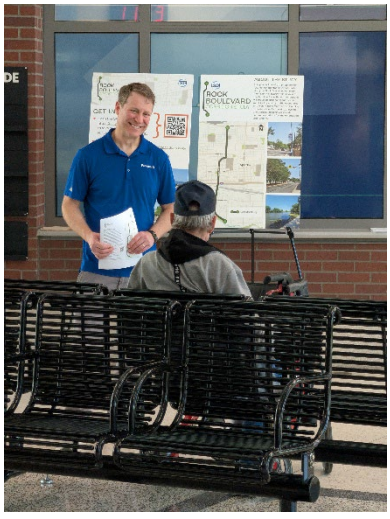
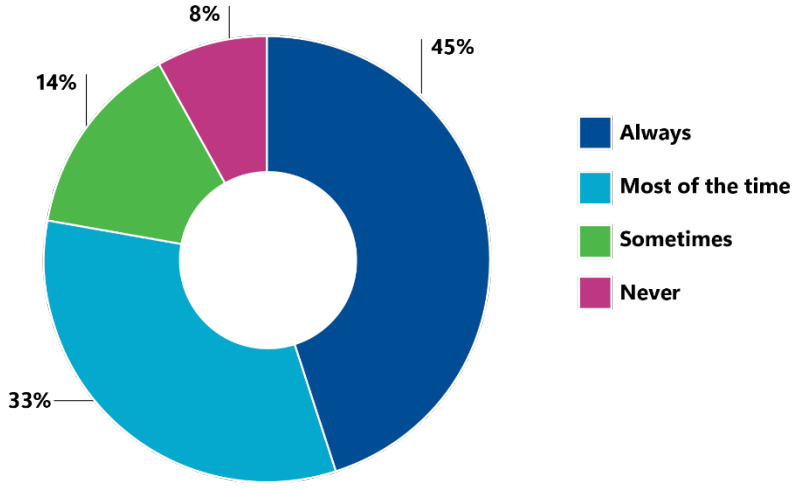
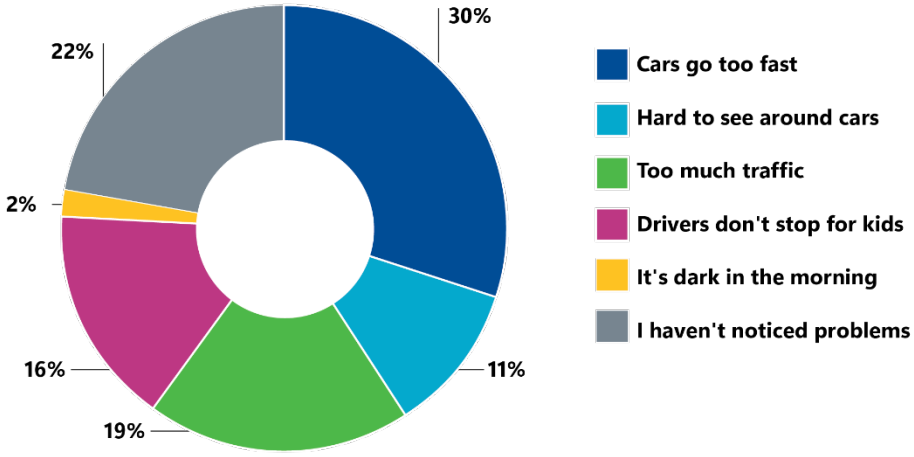


Figure 2. Outreach at RTC Centennial Plaza

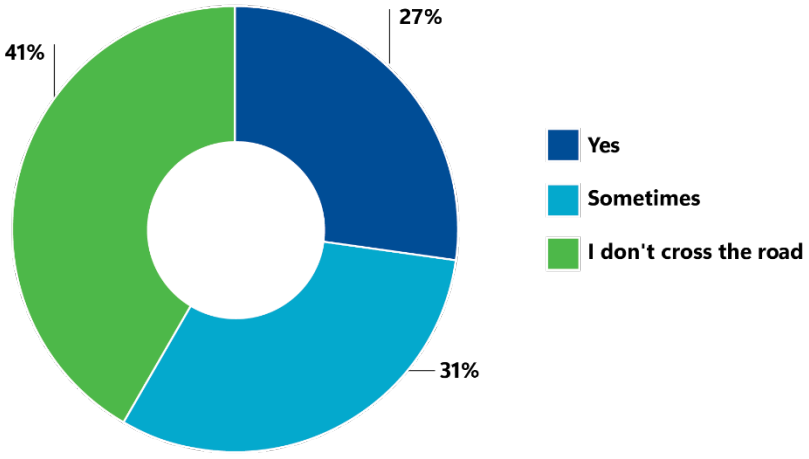
Do you feel safe near the road in front of the school?

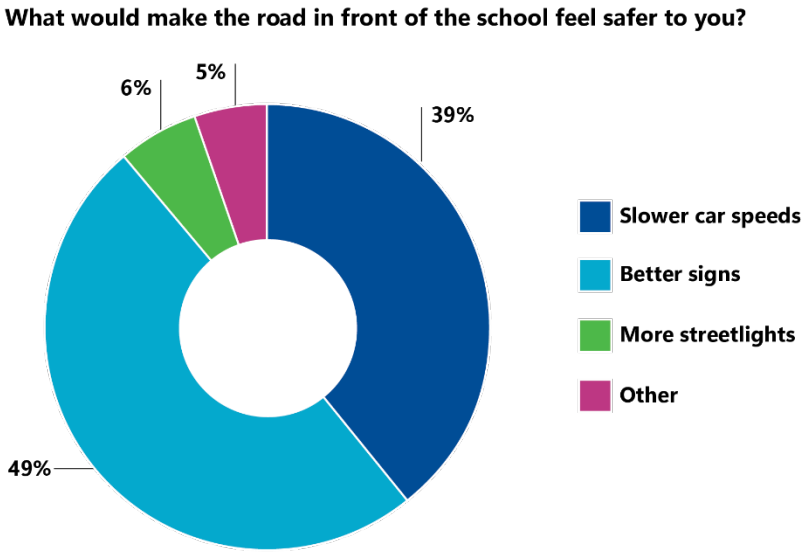


What problems have you noticed on Rock Blvd?



Is it easo cross the road in front of the school?





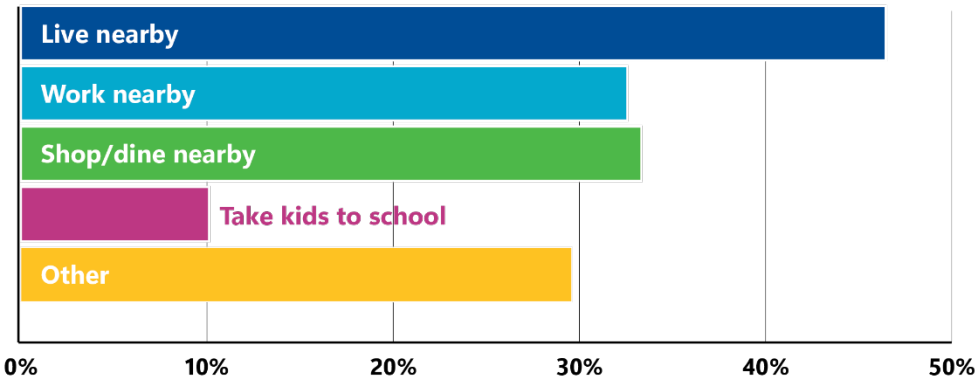
3.2. Online Survey

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.

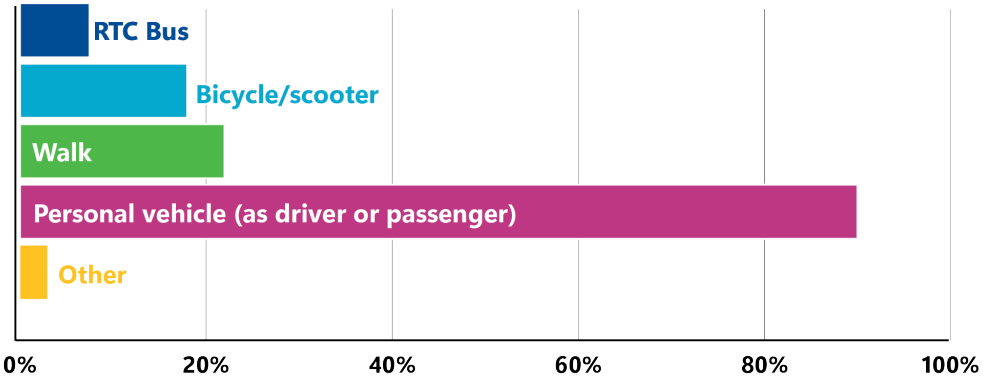
Promotion of the surveys occurred at the Maxwell Elementary School Art Night event, Sparks High School Student Voice meeting, and Centennial Plaza information event, as well as through the distribution of digital and hard copy informational flyers in English and Spanish shown in Attachment A. The flyers 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.

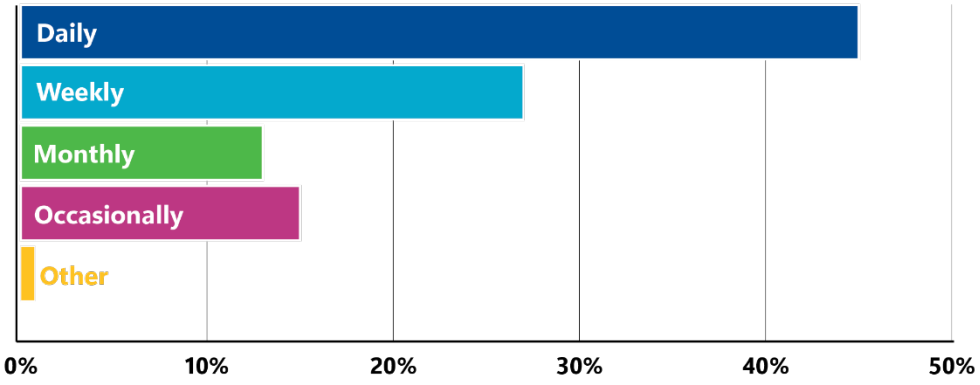
Why do you use Rock Boulevard? (check all that apply)



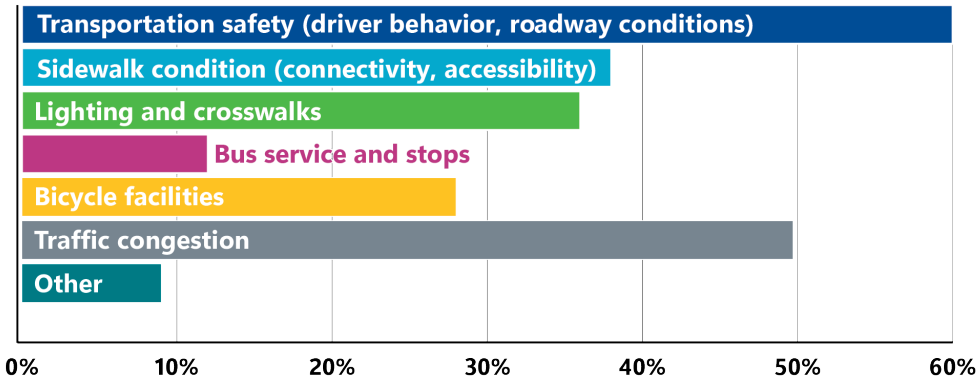
How do you travel along Rock Boulevard? (check the two methods you use most)



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

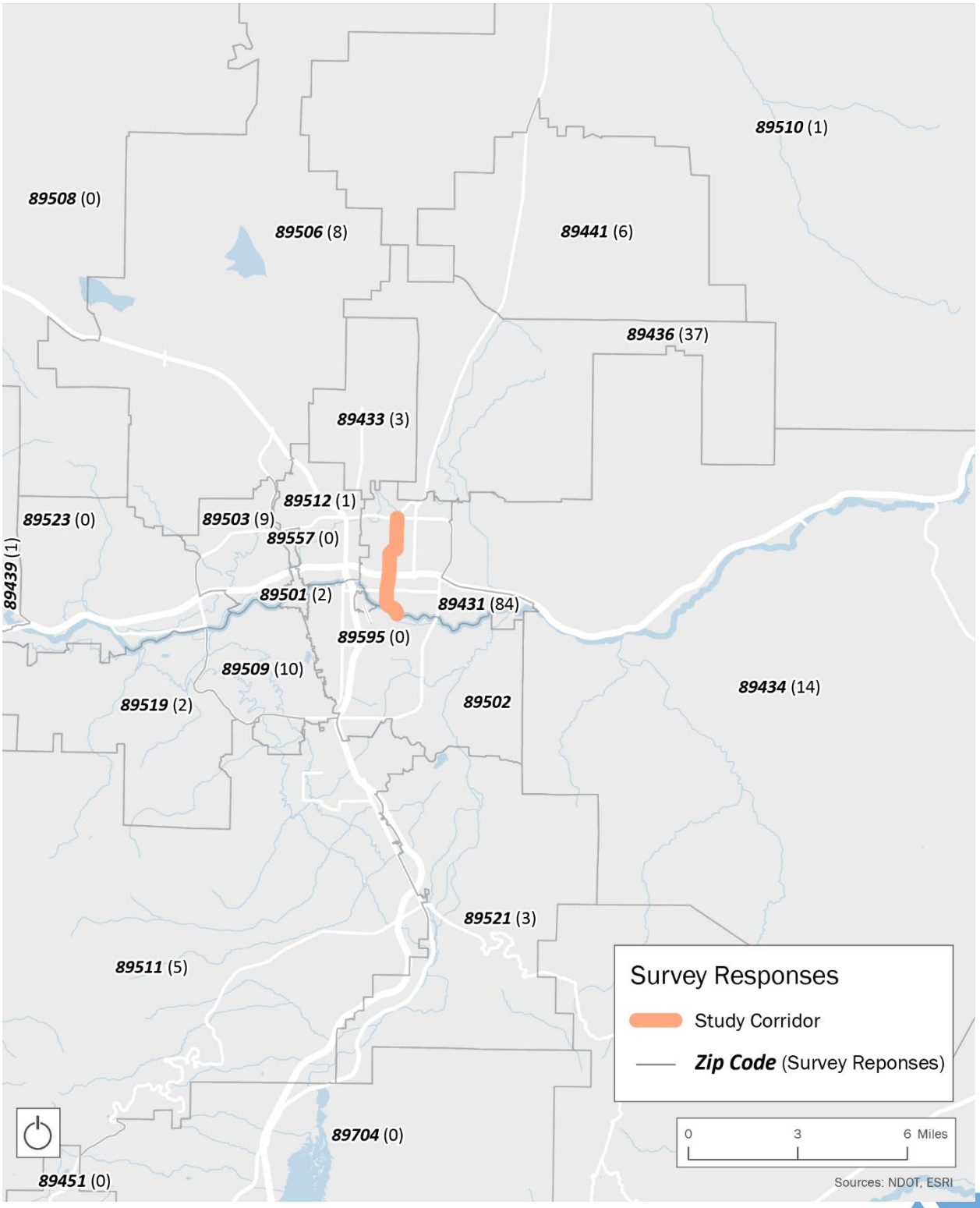


What are the greatest needs or concerns in the Rock Boulevard corridor? (select up to three)



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.



May 2026

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

4.2 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

ROCK BOULEVARD
CORRIDOR STUDY

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[1]

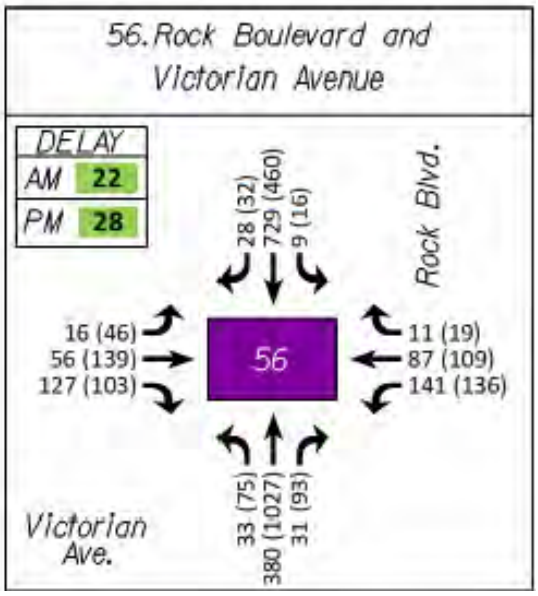
The *Reno Spaghetti Bowl Project - Traffic Analysis Report* includes turning movement counts (TMCs) from 2019, and projected 2040 volumes for the NDOT Preferred Alternative (Alternative 2) for the following intersections in the study corridor:

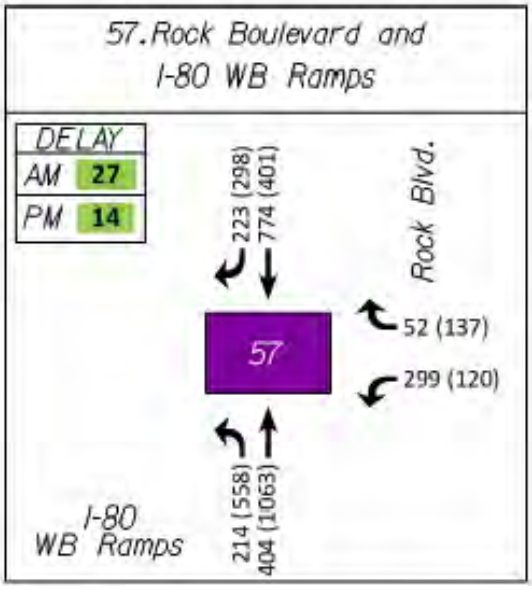
- Rock Boulevard / Victorian Avenue
- Rock Boulevard / I-80 WB Ramps
- Rock Boulevard / I-80 EB Ramps
- Rock Boulevard / Hymer Avenue

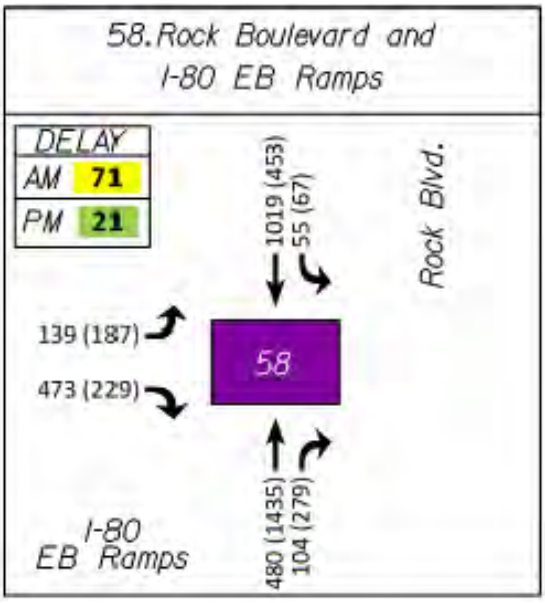
The 2019 and projected 2040 volumes are shown in **Exhibits B-2 and B-3** respectively. The 2019 counts are deemed too old for this study.

It should be noted that NDOT is performing a NEPA Reevaluation for the Spaghetti Bowl Phase 2 project and that the traffic analysis will be updated for 2026 to 2050 volumes; however, that work was not complete in time for use in this study. This study did not evaluate the I-80 ramp intersections and will rely on the future NDOT NEPA re-evaluation work for the interchange ramps.

[1] https://www.dot.nv.gov/home/showpublisheddocument/21461/638140388867200000







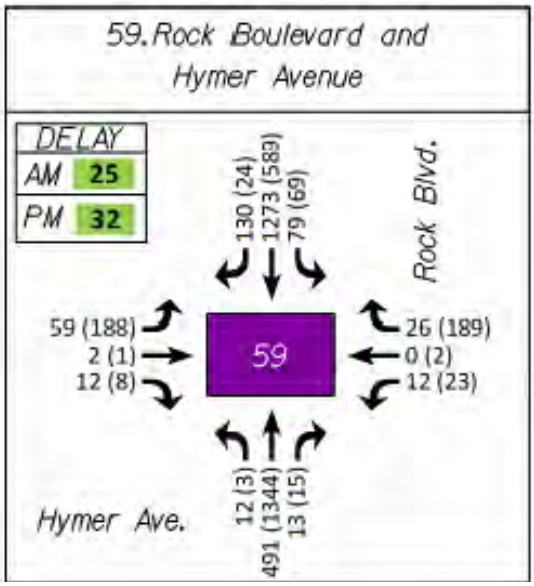
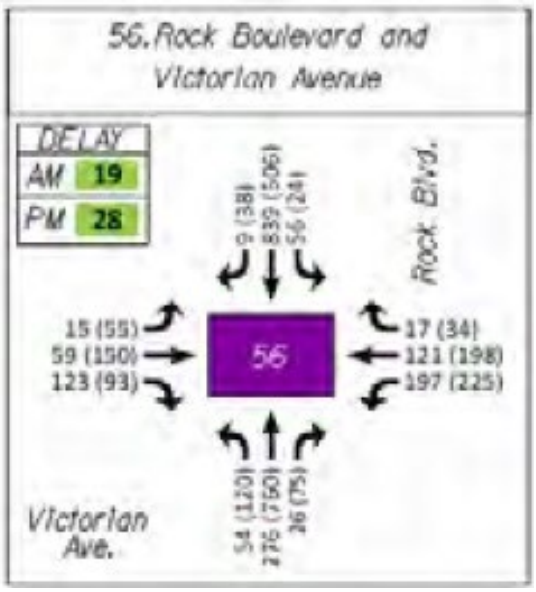
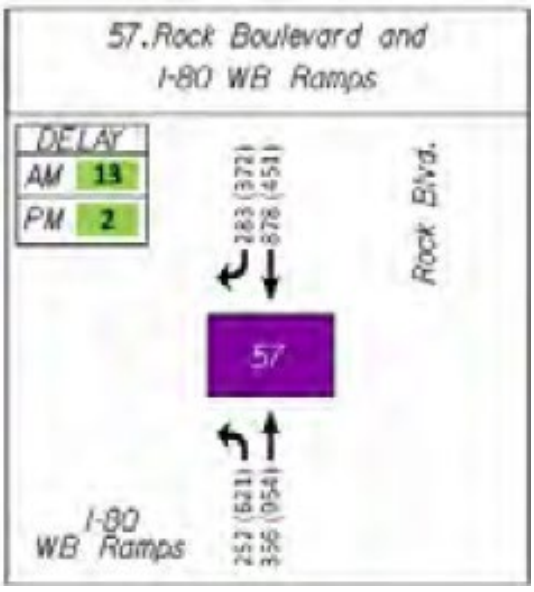
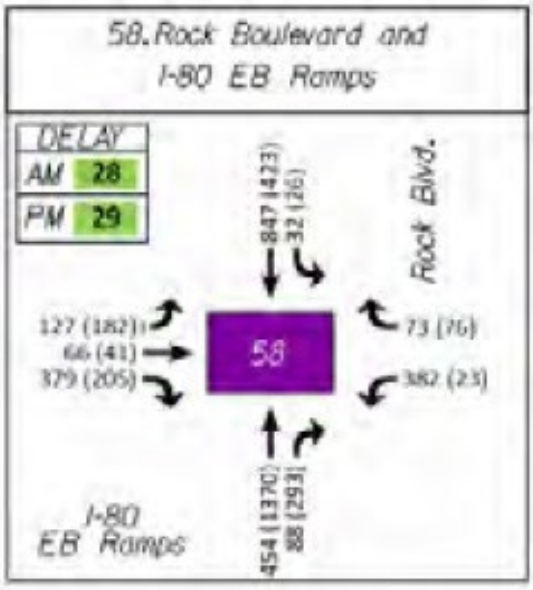


Exhibit B-2: 2019 Counts
(Source: Reno Spaghetti Bowl Project – Traffic Analysis Report)







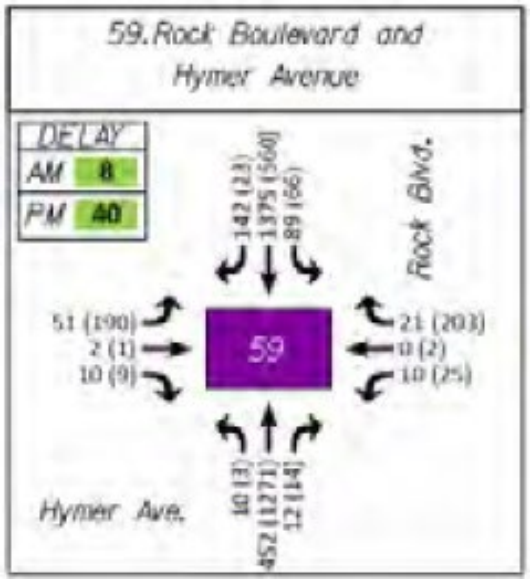


Exhibit B-3: 2040 Traffic Volumes – Preferred Alternative (Alternative 2)
(Source: Reno Spaghetti Bowl Project – Traffic Analysis Report)

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.

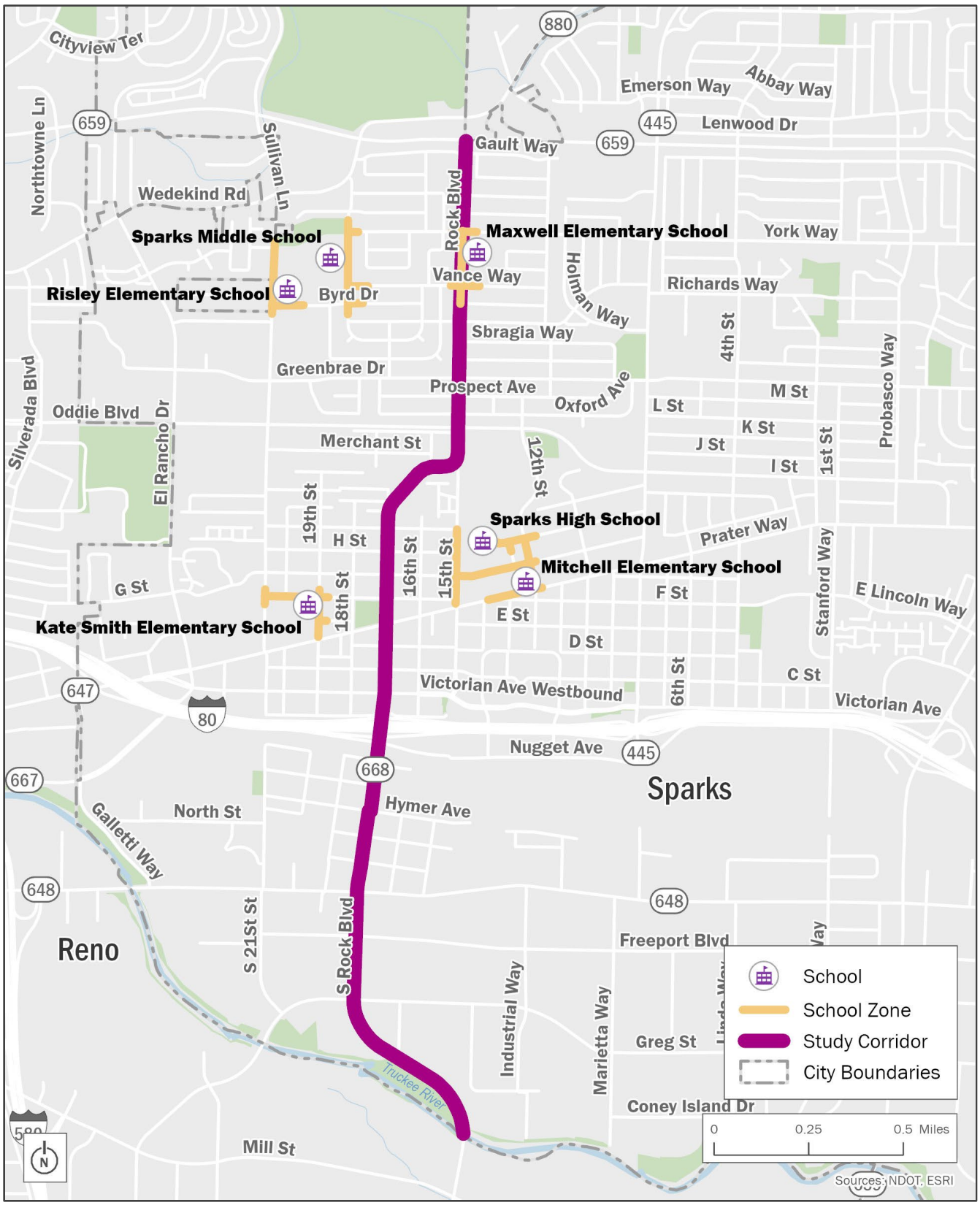


Exhibit B-4. School Zones

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

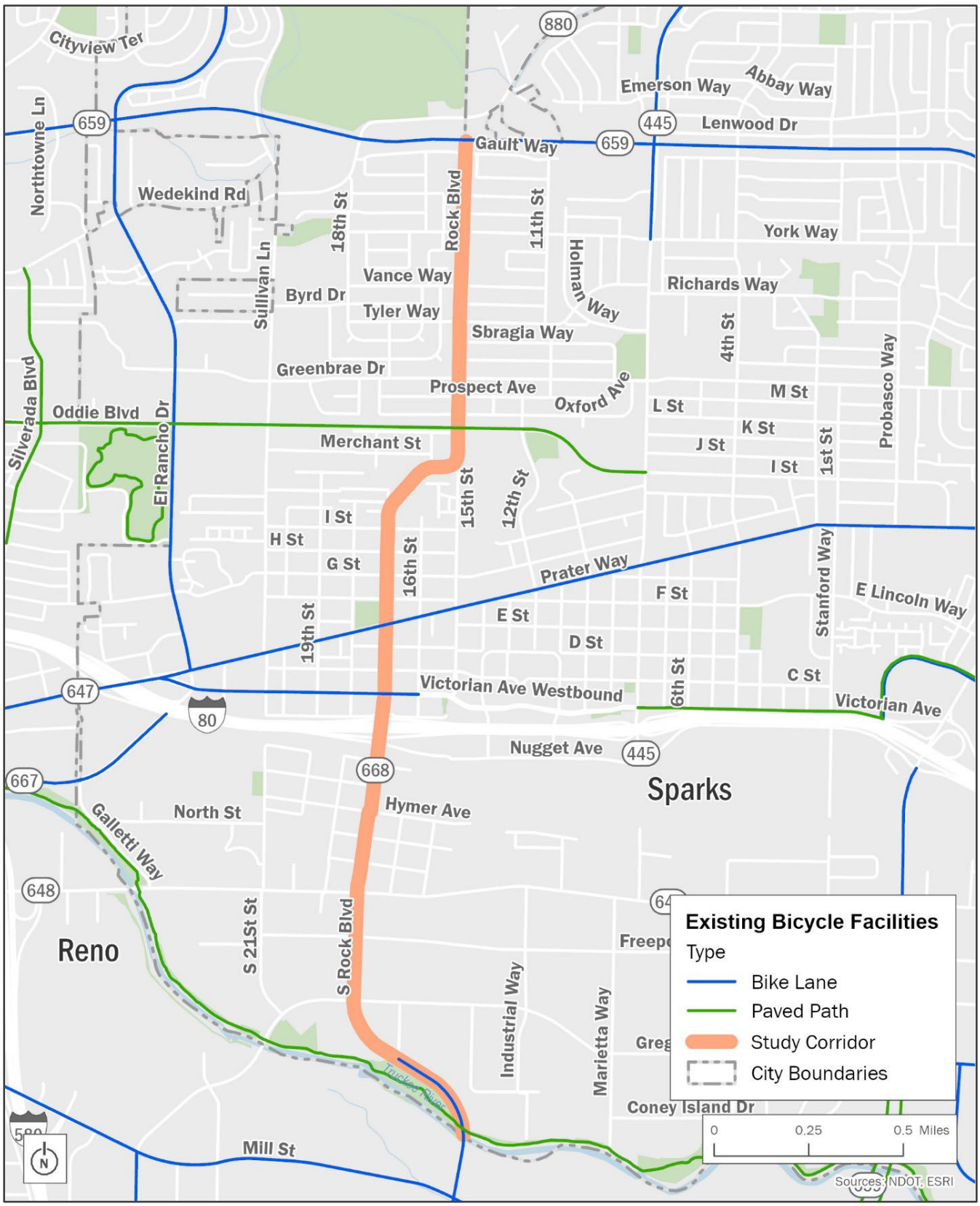


Exhibit B-6. Existing Bicycle Facilities

APPENDIX C

Crash Data

ROCK BOULEVARD CORRIDOR STUDY

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.

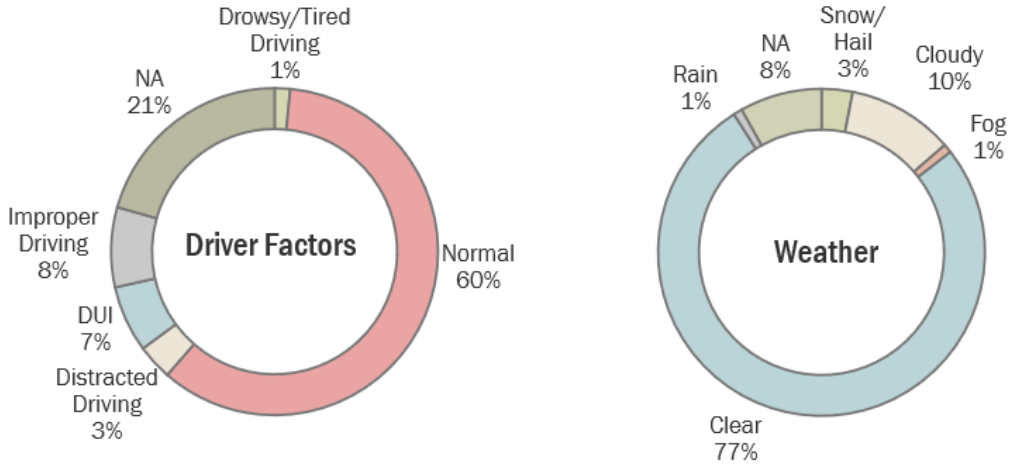


Exhibit C-1: Driver and Environmental Factors

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.

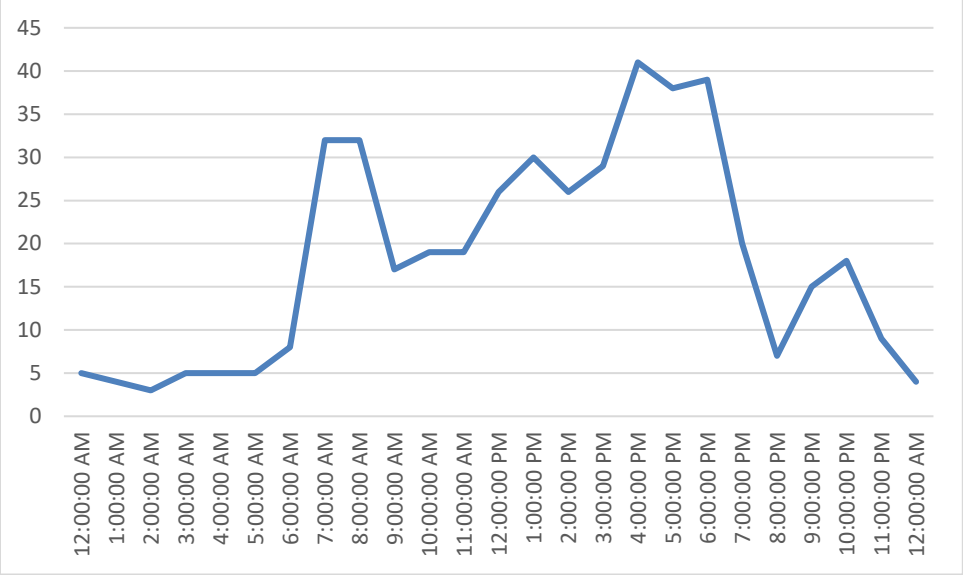


Exhibit C-2: Average Number of Crashes by Time of Day

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.

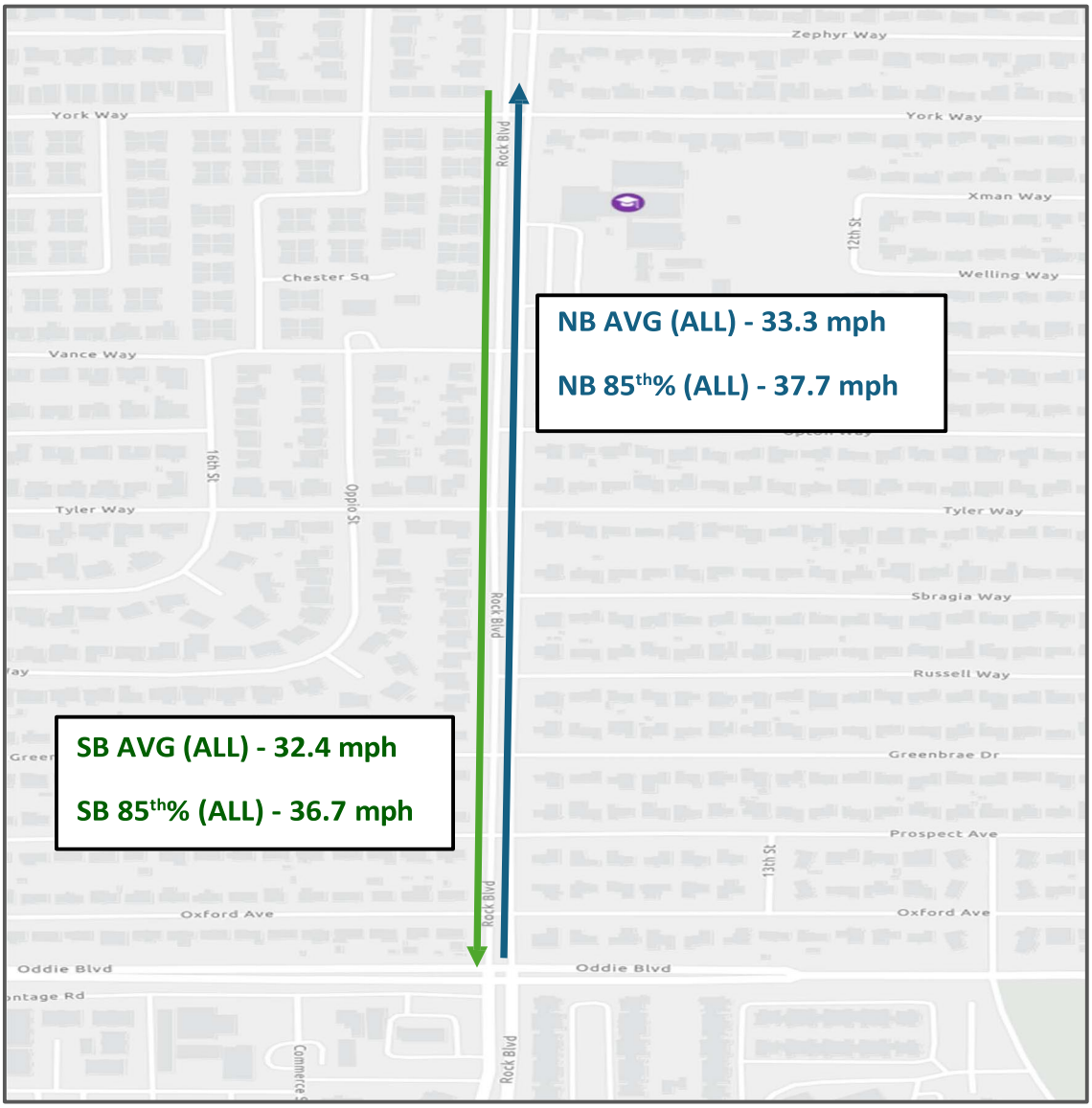
APPENDIX D

Speed Data

ROCK BOULEVARD
CORRIDOR STUDY

Rock Blvd Speed Survey

Location 1: (York Way to Oddie Blvd)

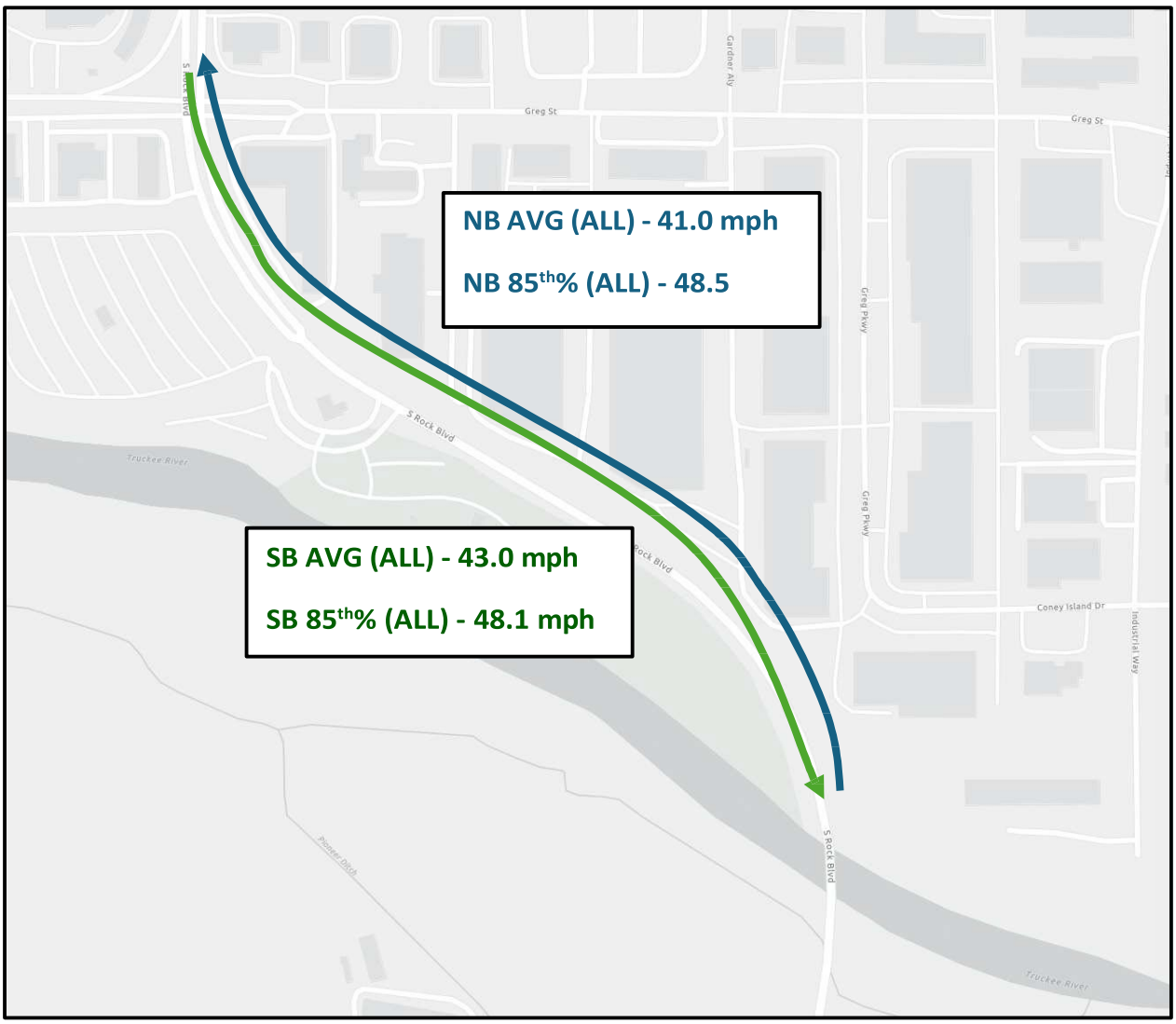


Direction	Posted Speed Limit (mph)	Average Speed (mph)	85th Percentile Speed (mph)	Total Volume
Rock Blvd, Northbound	30	33.3	37.7	495
Rock Blvd, Southbound	30	32.4	36.7	640
Rock Blvd Total	**30**	**33.3**	**37.2**	**1,135**

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Rock Blvd Speed Survey

Location 2: (Greg St to Truckee River)



Direction	Posted Speed Limit (mph)	Average Speed (mph)	85th 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
Rock Blvd Total	**45**	**42.0**	**48.5**	**2,468**

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Rock Blvd Speed Survey

Location 1 Data Tables

FEATURE NAME	VEHICLE TYPE	TOTAL VOLUME	AVG SPEED (MPH)	MEDIAN SPEED (MPH)	85TH PERCENTILE SPEED (MPH)	15TH 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)	85TH PERCENTILE QUEUE LENGTH (FT)	15TH PERCENTILE QUEUE LENGTH (FT)	STD. DEV. QUEUE LENGTH (FT)	TRAVEL TIME 50
Rock NB – York to Oddie	CAR	265.862	33.116	166.849	13.857	640.698	60.6825
Rock NB – York to Oddie	ALL	265.862	33.116	166.849	13.857	640.698	60.6825
Rock SB – York to Oddie	CAR	203.106	37.141	329.744	9.291	451.49	57.05816
Rock SB – York to Oddie	HCV	325.22	325.22	325.22	325.22	undefined	129.5
Rock SB – 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)	85TH PERCENTILE SPEED (MPH)	15TH PERCENTILE SPEED (MPH)	STD. DEV. SPEED (MPH)
Rock NB - River to Greg	CAR	1220	41.129	43.322	48.629	36.599	10.656
Rock NB - River to Greg	HCV	21	33.13	36.474	40.016	31.752	11.446
Rock NB - River to Greg	ALL	1241	40.988	43.198	48.529	36.22	10.717
Rock SB - Greg to River	CAR	1128	43.526	44.117	48.38	38.649	5.538
Rock SB - Greg to River	HCV	99	35.518	37.655	42.378	32.125	9.799
Rock SB - 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)	85TH PERCENTILE QUEUE LENGTH (FT)	15TH PERCENTILE QUEUE LENGTH (FT)	STD. DEV. QUEUE LENGTH (FT)	TRAVEL TIME 50
Rock NB - River to Greg	CAR	124.046	75.091	227.464	16.526	142.525	65.87512
Rock NB - River to Greg	HCV	undefined	undefined	undefined	undefined	undefined	35.64706
Rock NB - River to Greg	ALL	124.046	75.091	227.464	16.526	142.525	65.38196
Rock SB - Greg to River	CAR	undefined	undefined	undefined	undefined	undefined	34.79769
Rock SB - 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



Rock Boulevard Corridor Study
Transit Stop Analysis

Prepared by:
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Figure 1. Existing Transit Facilities and Services

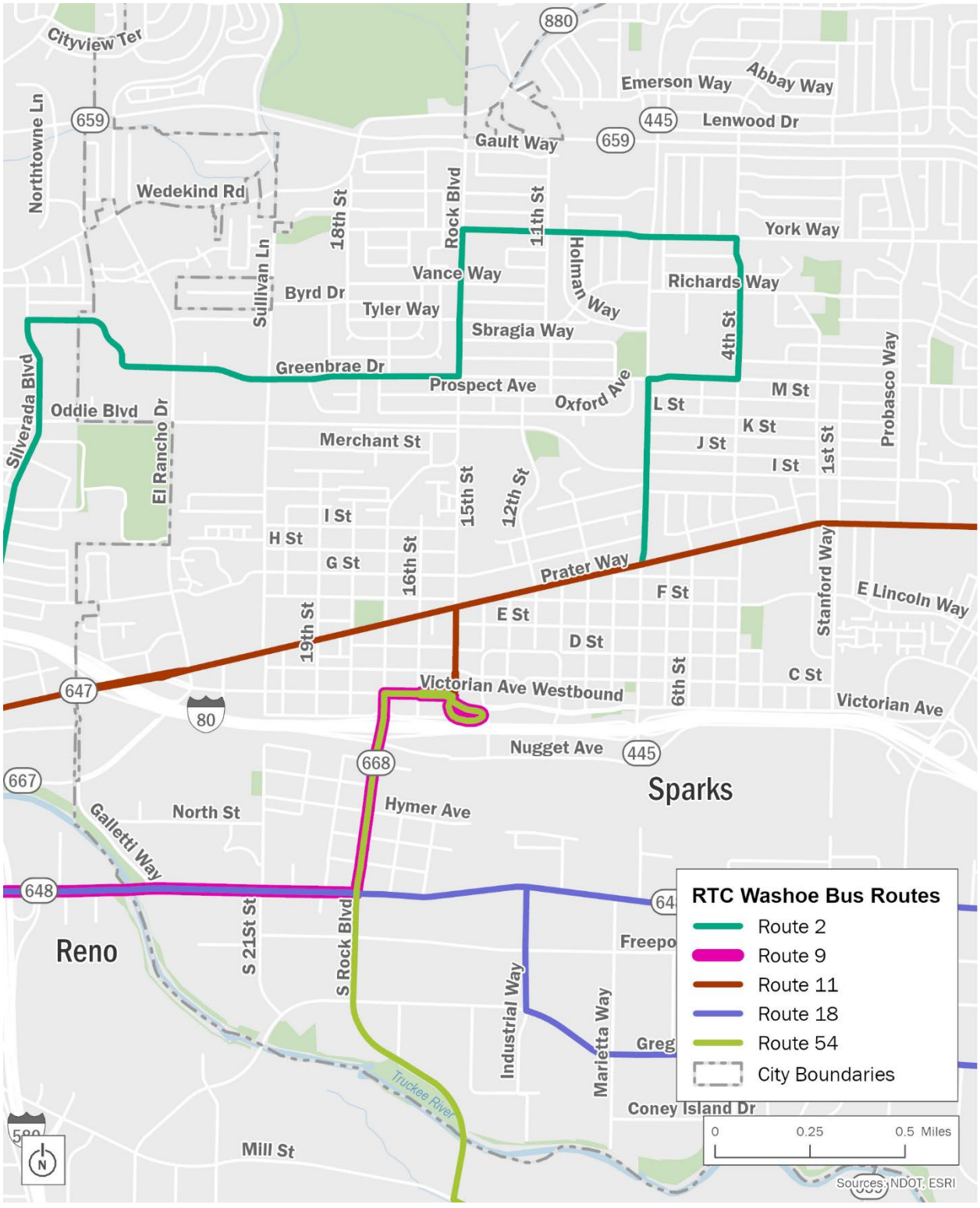


Figure 3. Rock Park Bus Stops (Route 54)



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)

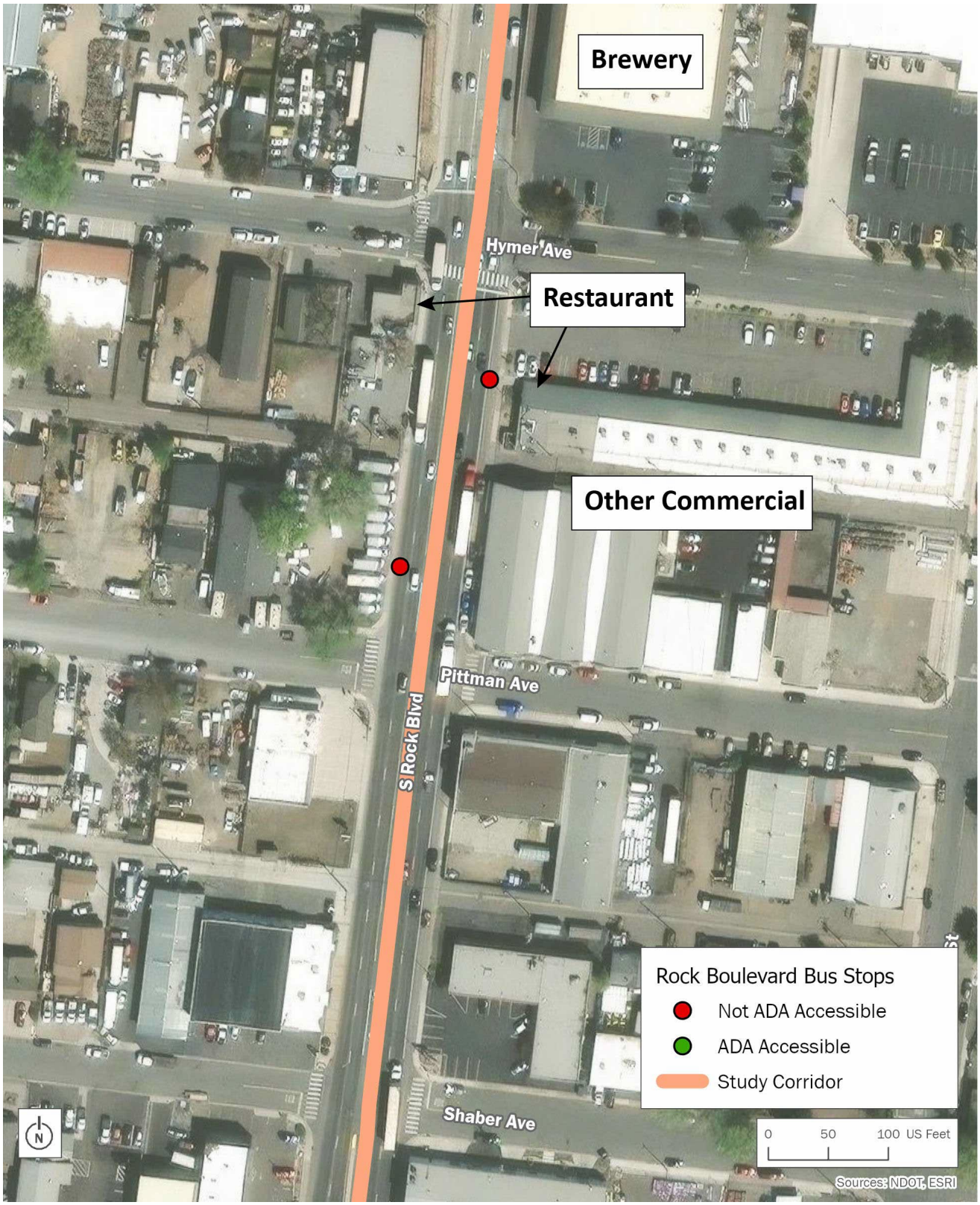


2.3. Pittman Avenue

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)

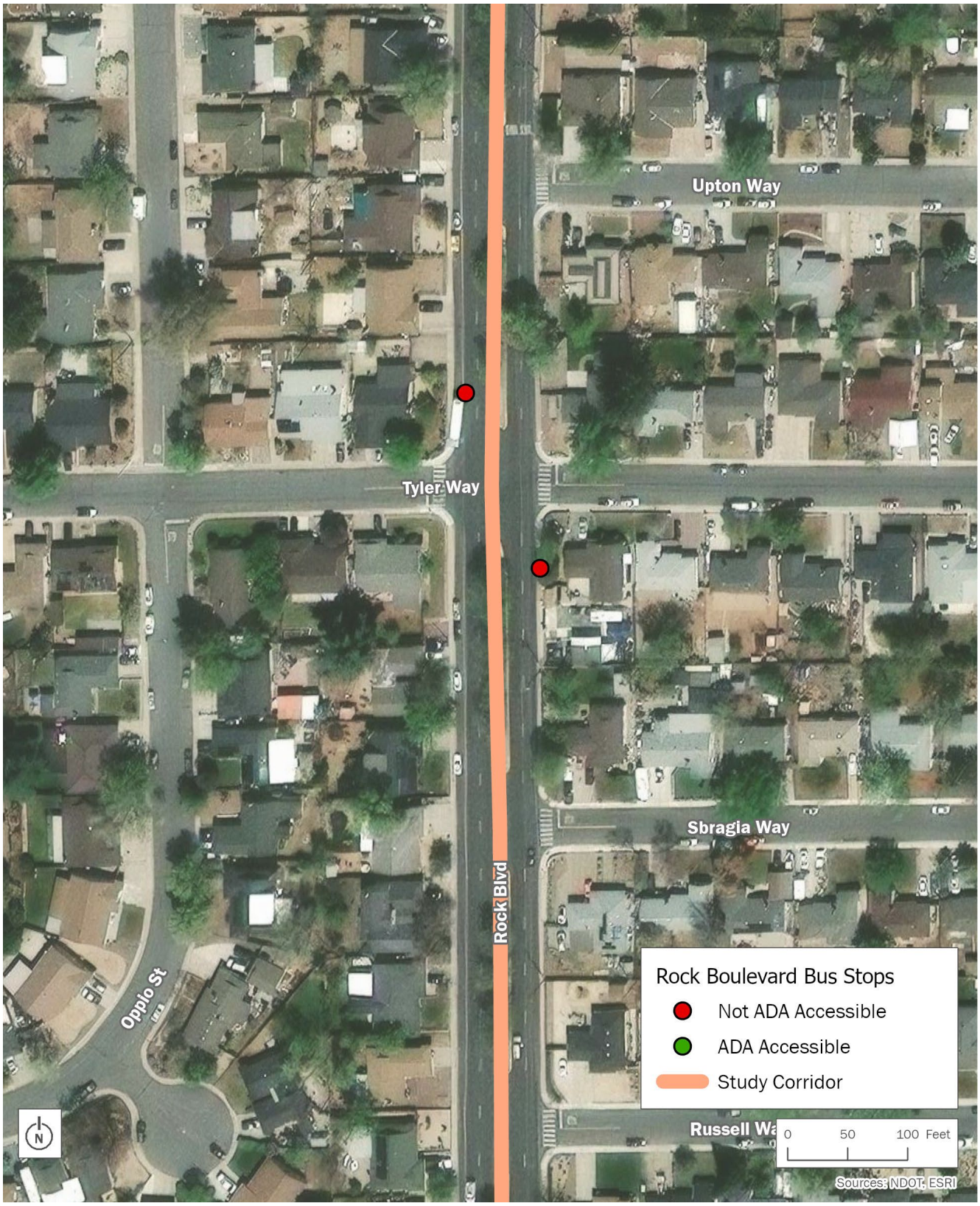


2.5. Tyler Way

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)



APPENDIX F

Traffic Operations Analysis

ROCK BOULEVARD
CORRIDOR STUDY

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), 7th 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, 7th 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 7th 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, 7th 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
Posted Speed = 30 mi/hr					
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
Posted Speed = 45 mi/hr					
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 7th and January 9th, 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.

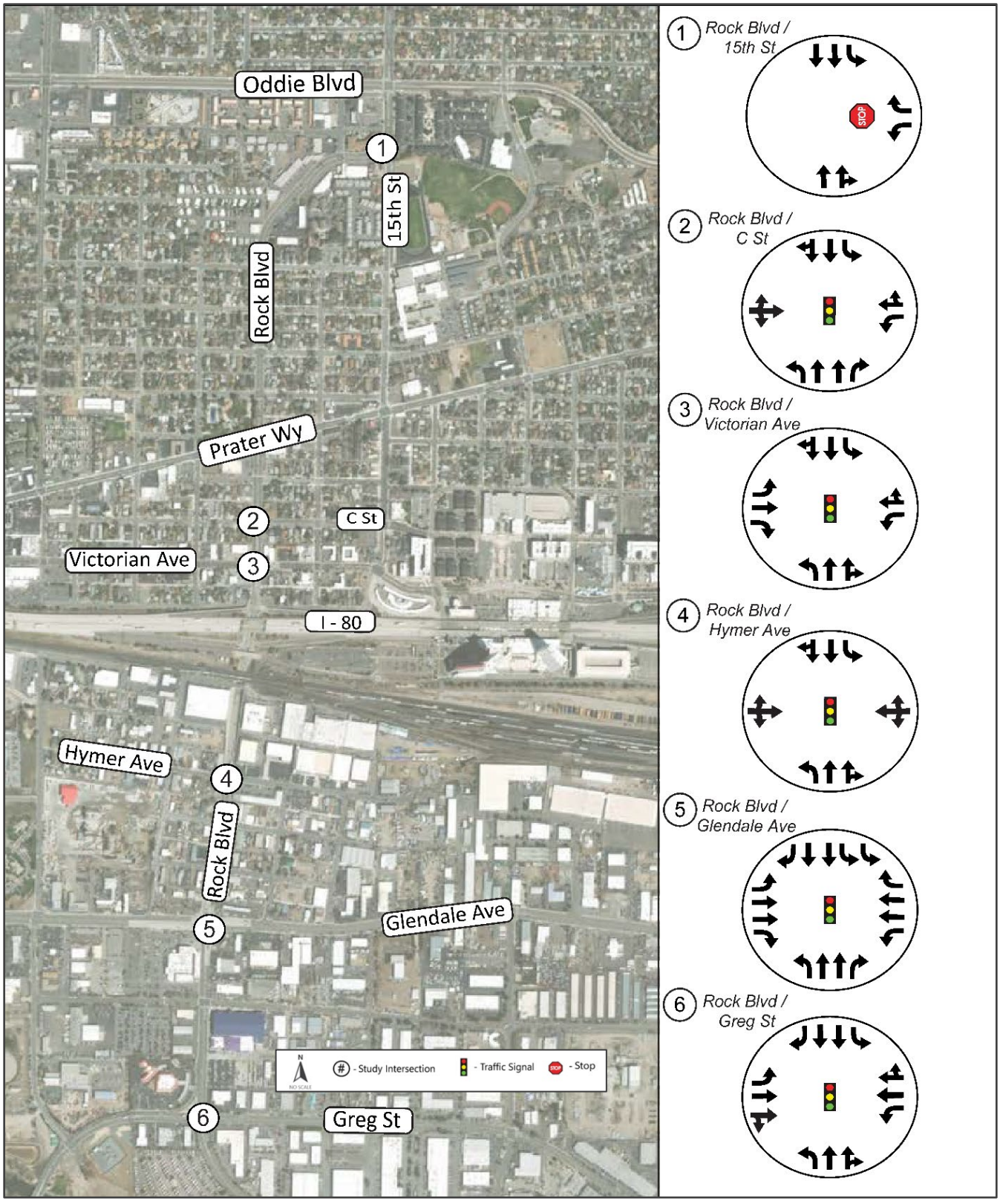


Exhibit F-1. Existing Intersection Lane Configurations and Controls

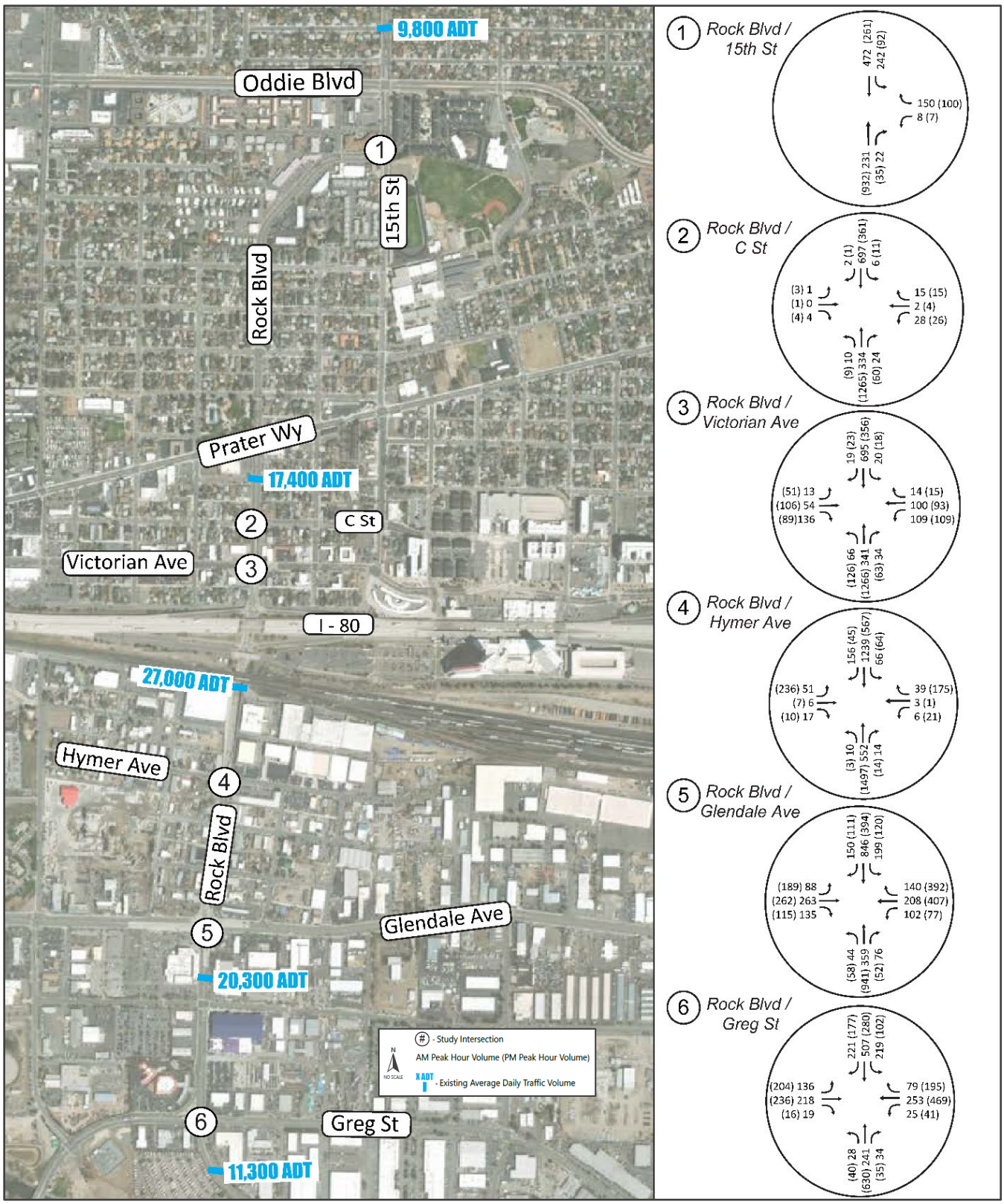


Exhibit F-2. Existing Traffic Volumes

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[1]	LOS	Delay[1]
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

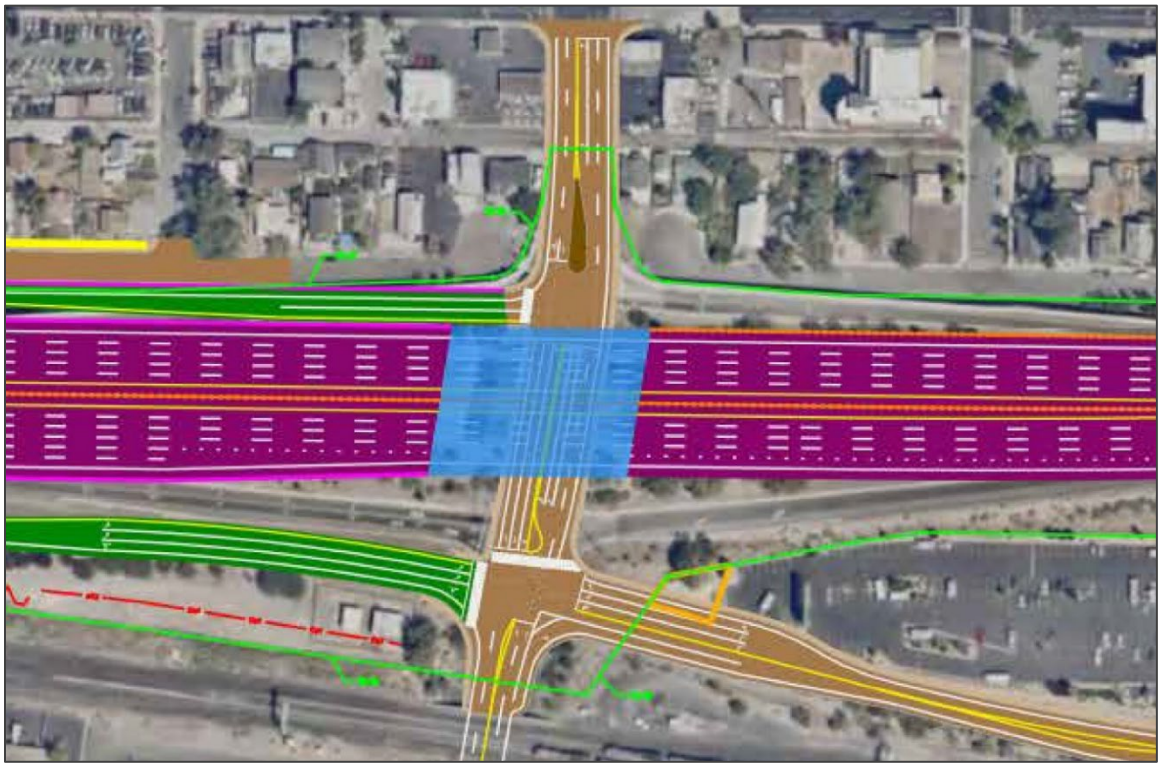


Exhibit F-3. I-80 Preferred Alternative at Rock Boulevard

The *Reno Spaghetti Bowl Project - Traffic Analysis Report* includes turning movement counts and projected

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

the NDOT study to develop 2050 horizon traffic volumes. Future (2050) traffic volume projections at the other

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[1]	LOS	Delay[1]
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.

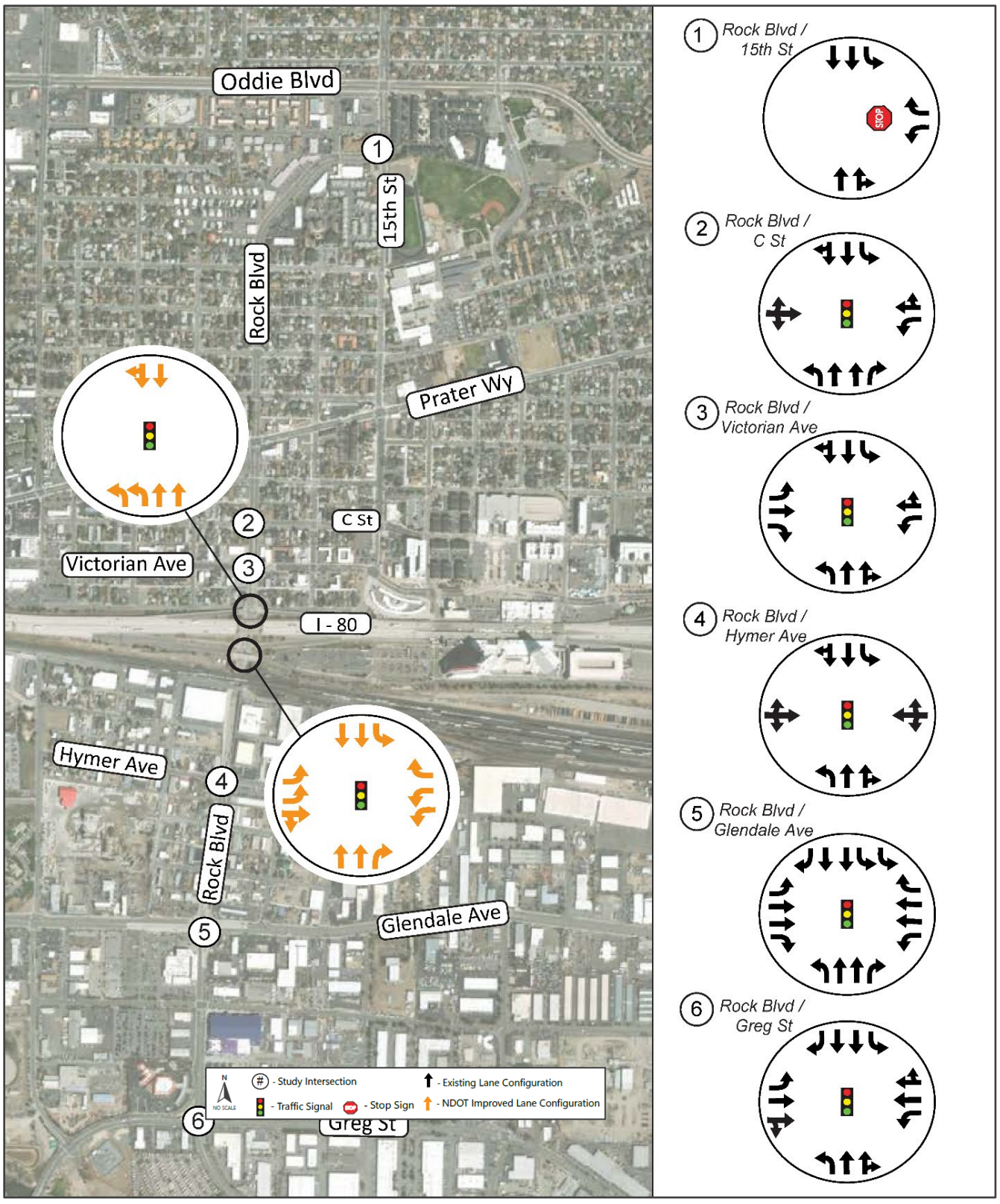


Exhibit F-4. Future Year Baseline Lane Configurations and Controls

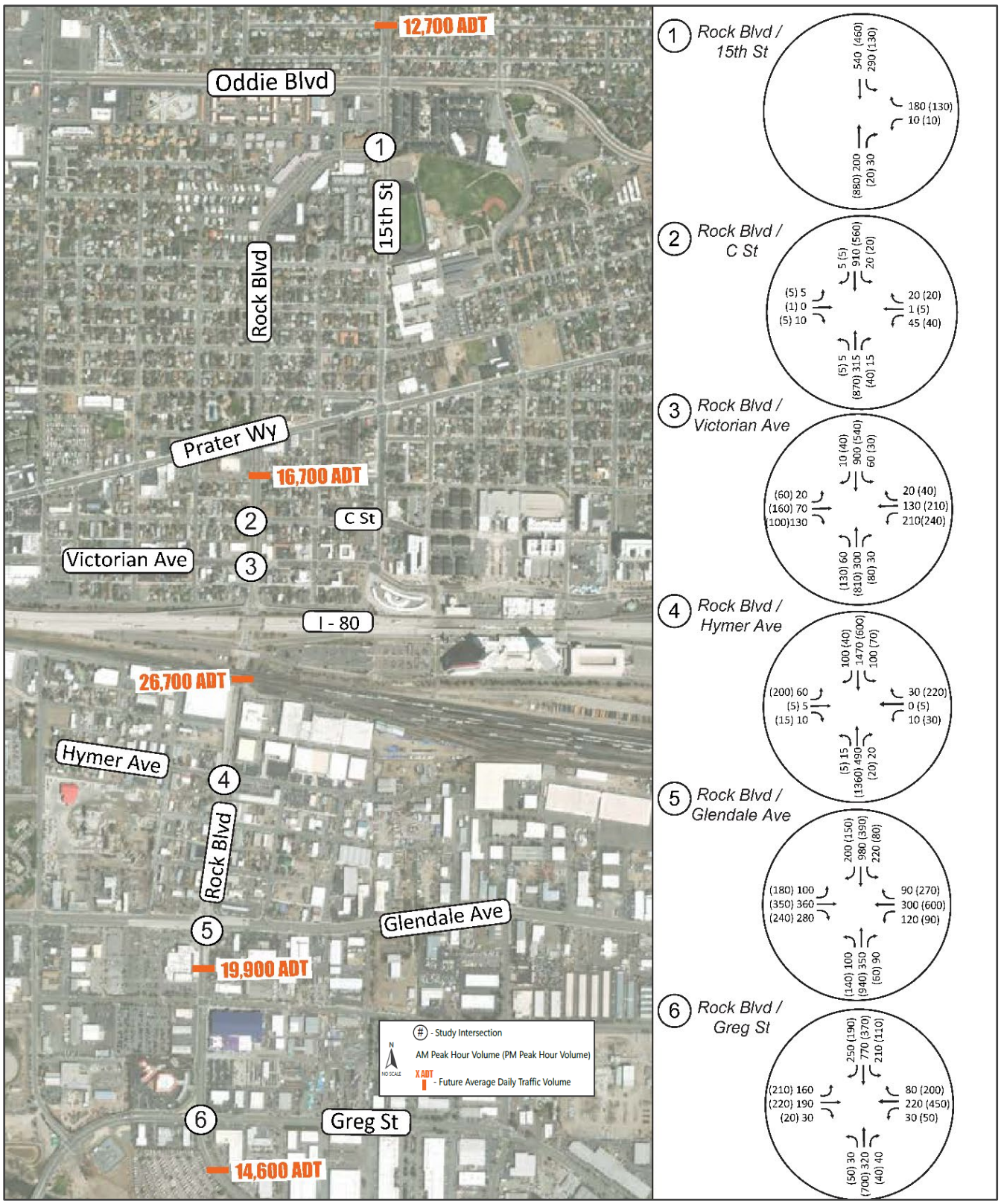


Exhibit F-5. Future Year (2050) Traffic Volumes

APPENDIX G

Alternatives Analysis

ROCK BOULEVARD
CORRIDOR STUDY

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.

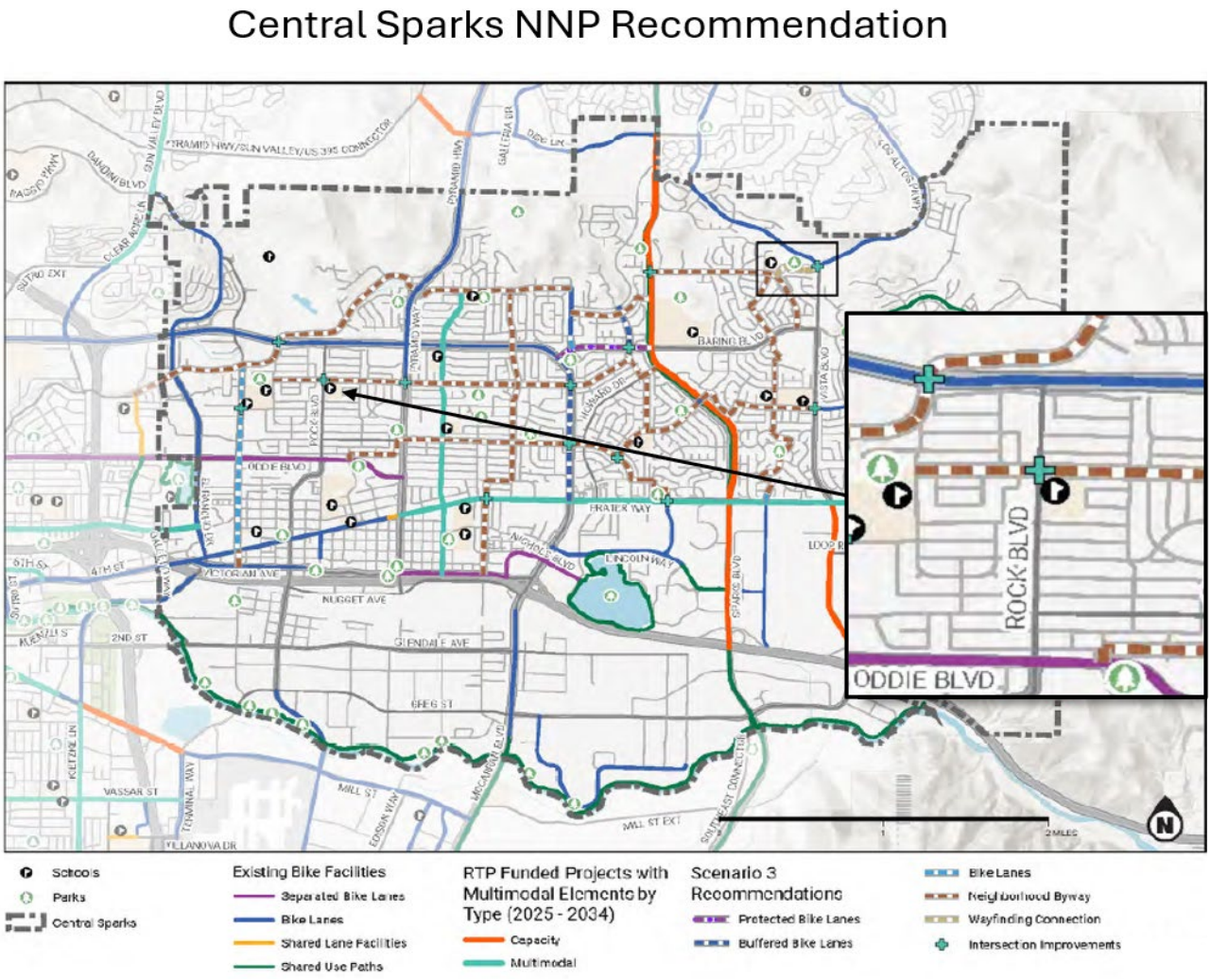


Exhibit G-1. Central Sparks Neighborhood Network Plan (NNP)

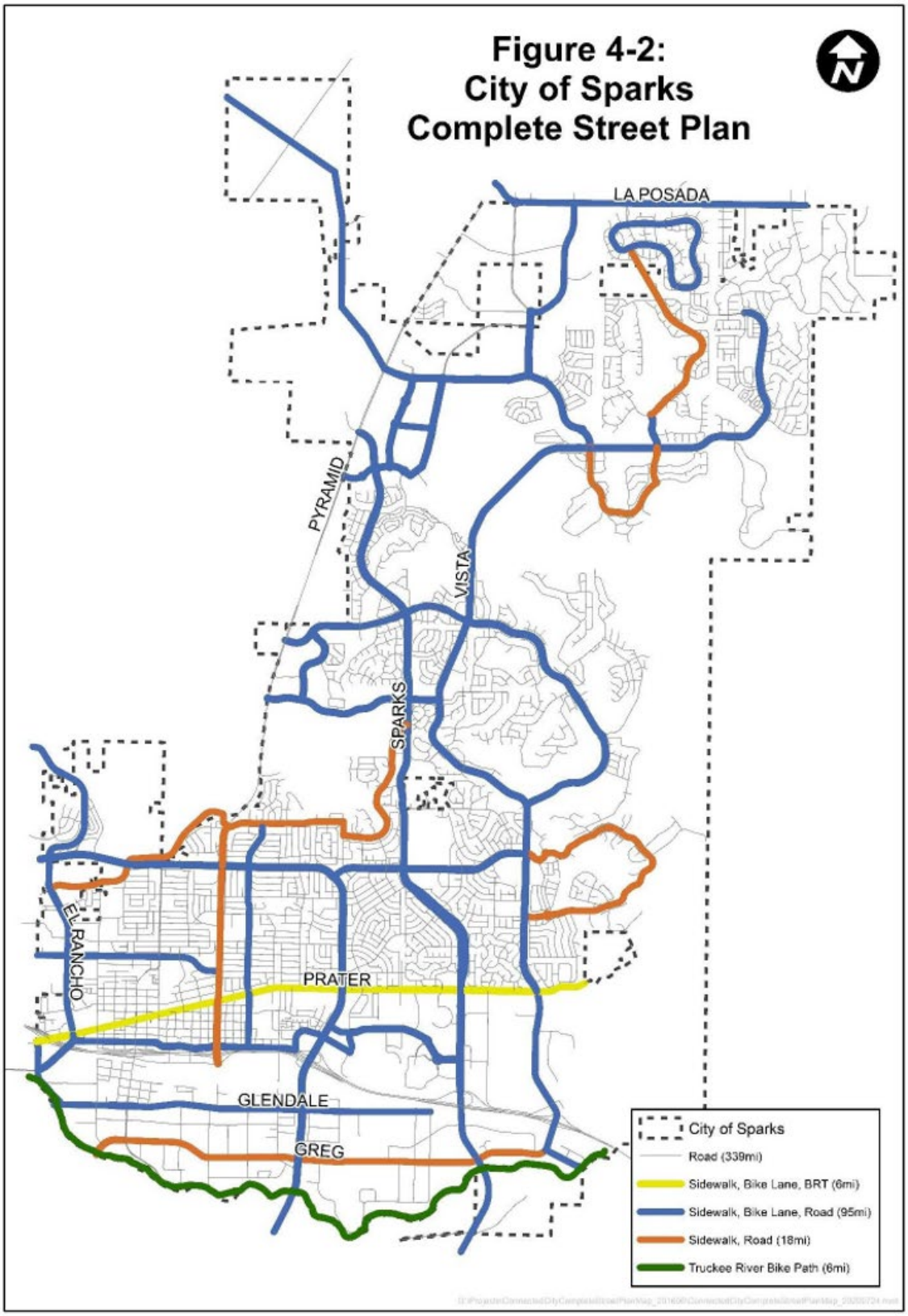


Exhibit G-2. Ignite Sparks Comprehensive Plan

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[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]
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.

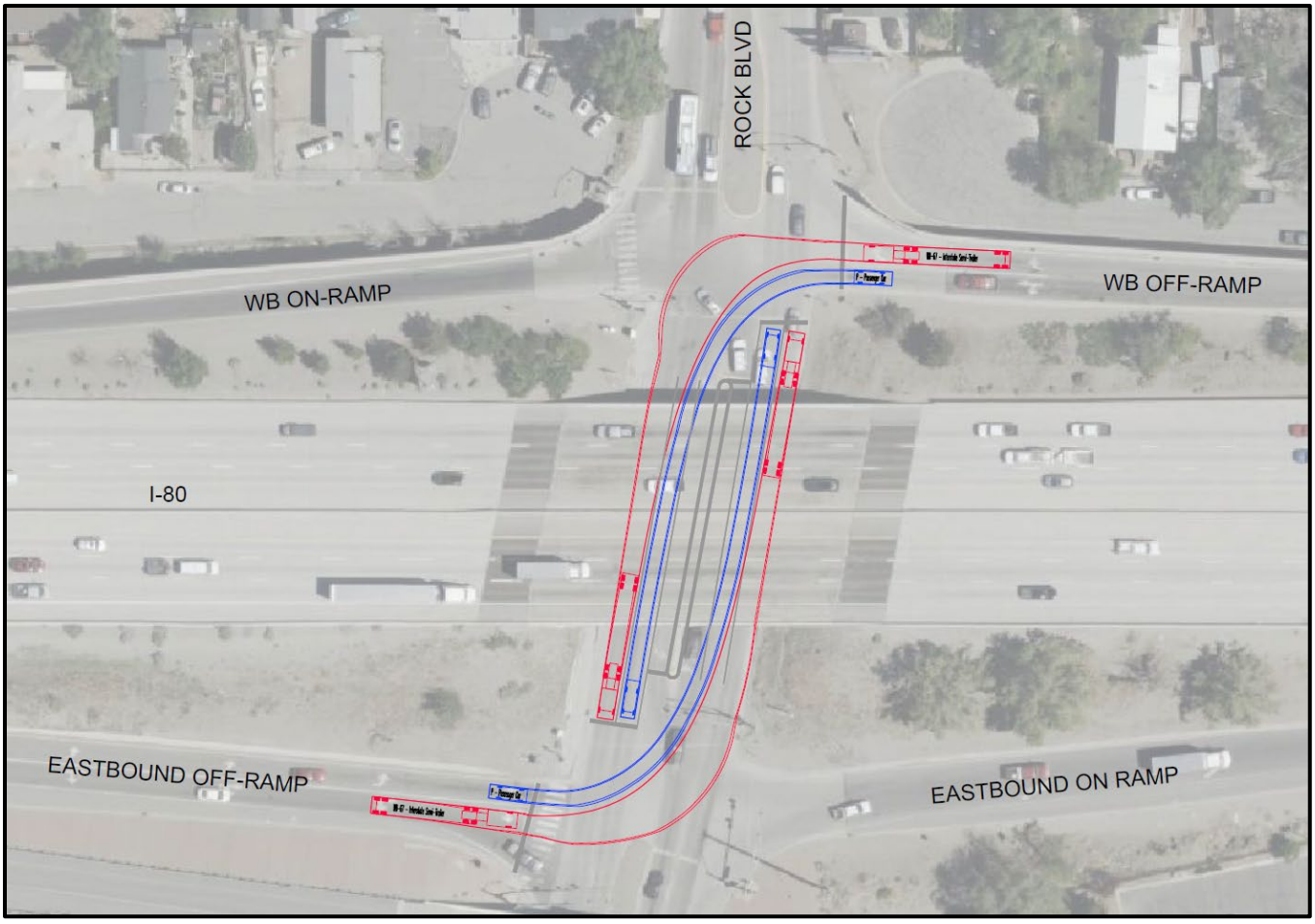


Exhibit G-3: Restriping for Dual Left Turn Lanes

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[1]	LOS	Delay[1]
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[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]
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.

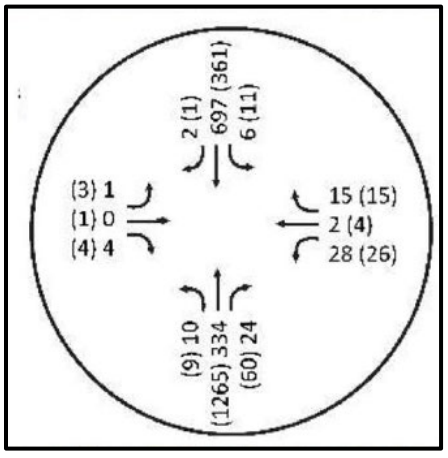


Exhibit G-4. C Street Peak Hour Traffic Volumes

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[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]
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[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]
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	***F***	***166.0***	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 (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[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]
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.

<u>Oddie Boulevard to N. McCarran Boulevard</u>

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 (Northern Neighborhood)	2	9,800	D	***12,700***	***E***

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 (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.

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, 15th 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 15th 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.

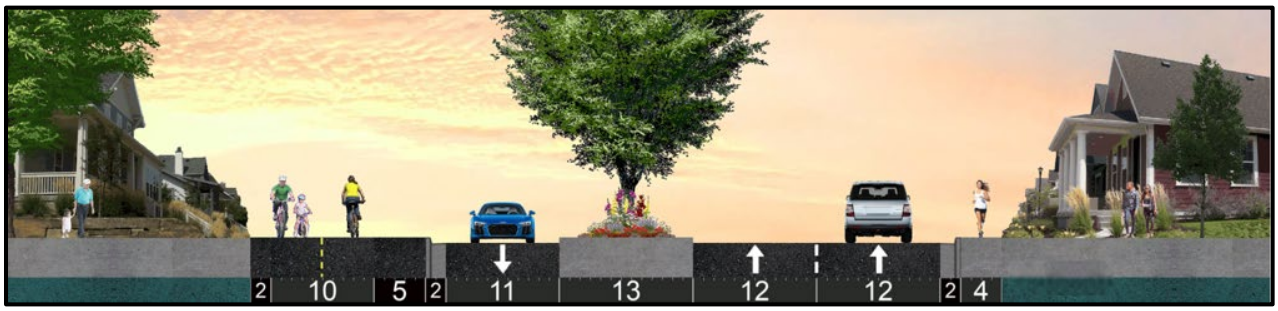


Exhibit G-8: B-1 Multi-Use Path with Road Diet

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.

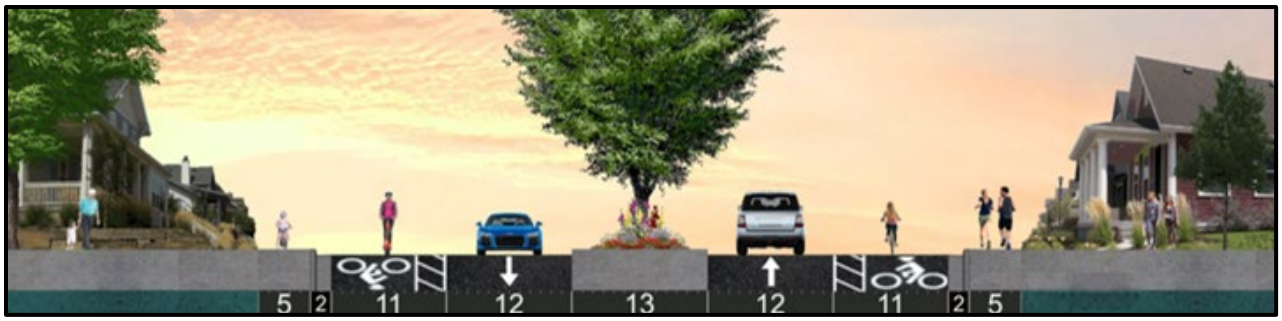


Exhibit G-9: B-2 Bike Lanes with Road Diet

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 CORRIDOR STUDY

Rock Boulevard - Project Scoring Criteria

	Goal	Objective	Metric	Max Score	Truckee River to Victorian Avenue (River/Industrial/I-80 Interchange)									Victorian Avenue to Oddie Boulevard (Residential/Commercial)						Oddie Boulevard to North McCarran Boulevard (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)	Dual 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	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	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	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	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	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	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	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	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	4	0	0	0	0	0	4	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	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	6	7	7	7	7	7	7	7	6	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	0
8	Fiscal Management	Prioritize Cost Effectiveness	Benefit 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	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	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	7	3
			Project Feasibility (High=10, Medium=5, Low=0)	10	5	5	0	10	10	10	5	5	10	0	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**	**47**	**64**	**45**	**55**	**74**	**74**	**44**	**44**	**64**	**37**	**66**	**73**	**66**	**66**

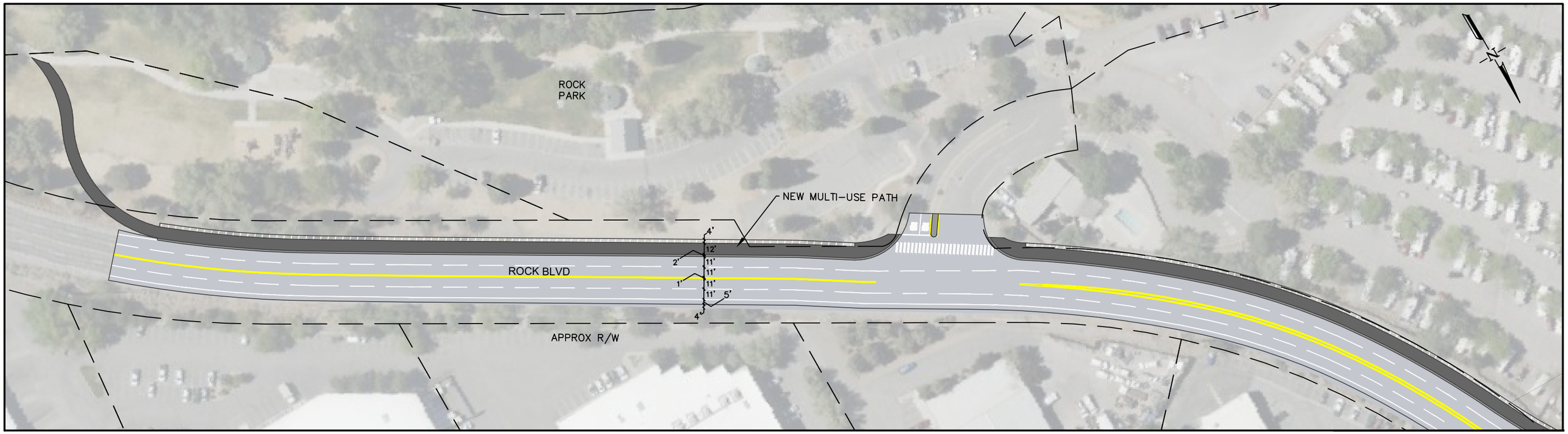
Notes:
- Potential Alternative (score greater than 50)
- Dismissed Alternative (score less than 50)

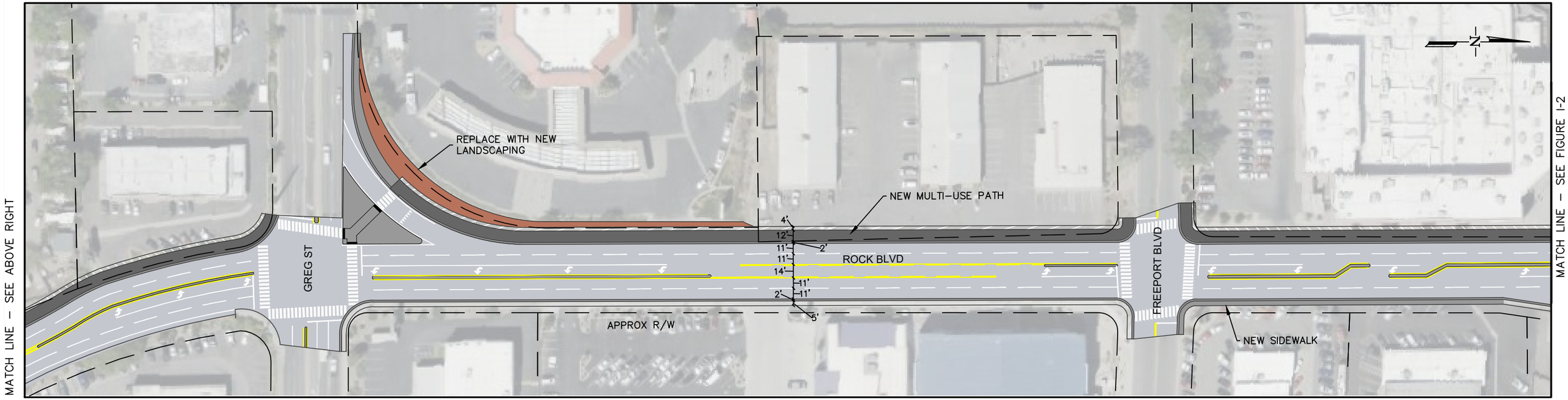
GCW ENGINEERS \ SURVEYORS

APPENDIX I

Concepts of Recommended Potential Improvements

ROCK BOULEVARD CORRIDOR STUDY





ROCK BOULEVARD CORRIDOR STUDY

1" = 100'

Figure I-1
Rock Boulevard
Corridor Study
Multi-Use Path (A-1 & A-2)

MATCH LINE – SEE FIGURE I-1

GLENDALE AVE

NEW MULTI–USE PATH

SHABER AVE

ROCK BLVD

PITTMAN AVE

HYMER AVE

MATCH LINE – SEE BELOW LEFT

MATCH LINE – SEE ABOVE RIGHT

NEW MULTI–USE PATH

ROCK BLVD

NUGGET AVE

I-80 EB OFF-RAMP

I-8

I-80 WB ON-RAMP

INTERIM INTERCHANGE ALTERNATIVE

I-80 EB ON-RAMP

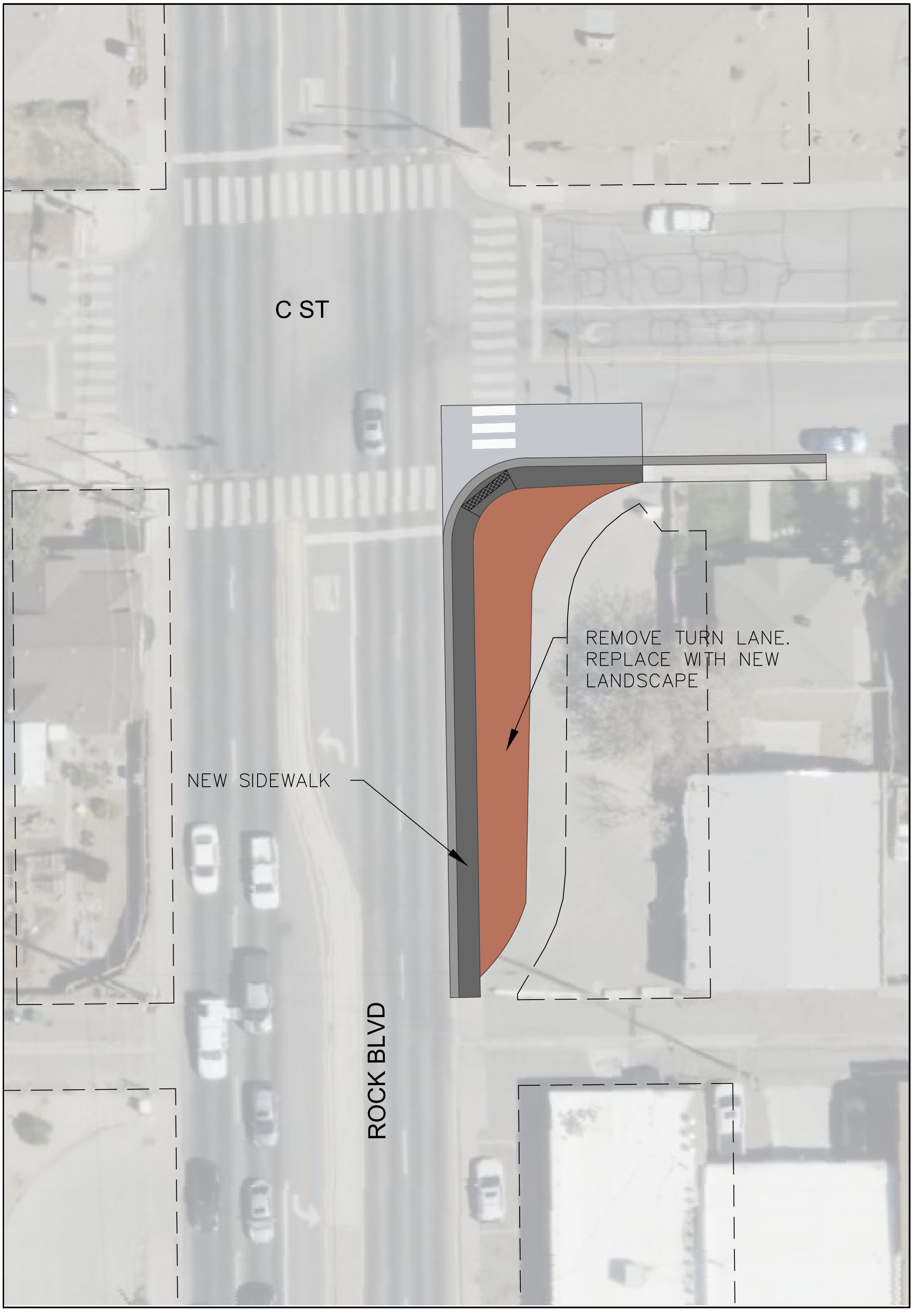
I-80 WB OFF-RAMP

VICTORIAN AVE

ROCK BOULEVARD CORRIDOR STUDY

1" = 100'

Figure I-2
Rock Boulevard
Corridor Study
Multi-Use Path (A-2 & A-4)



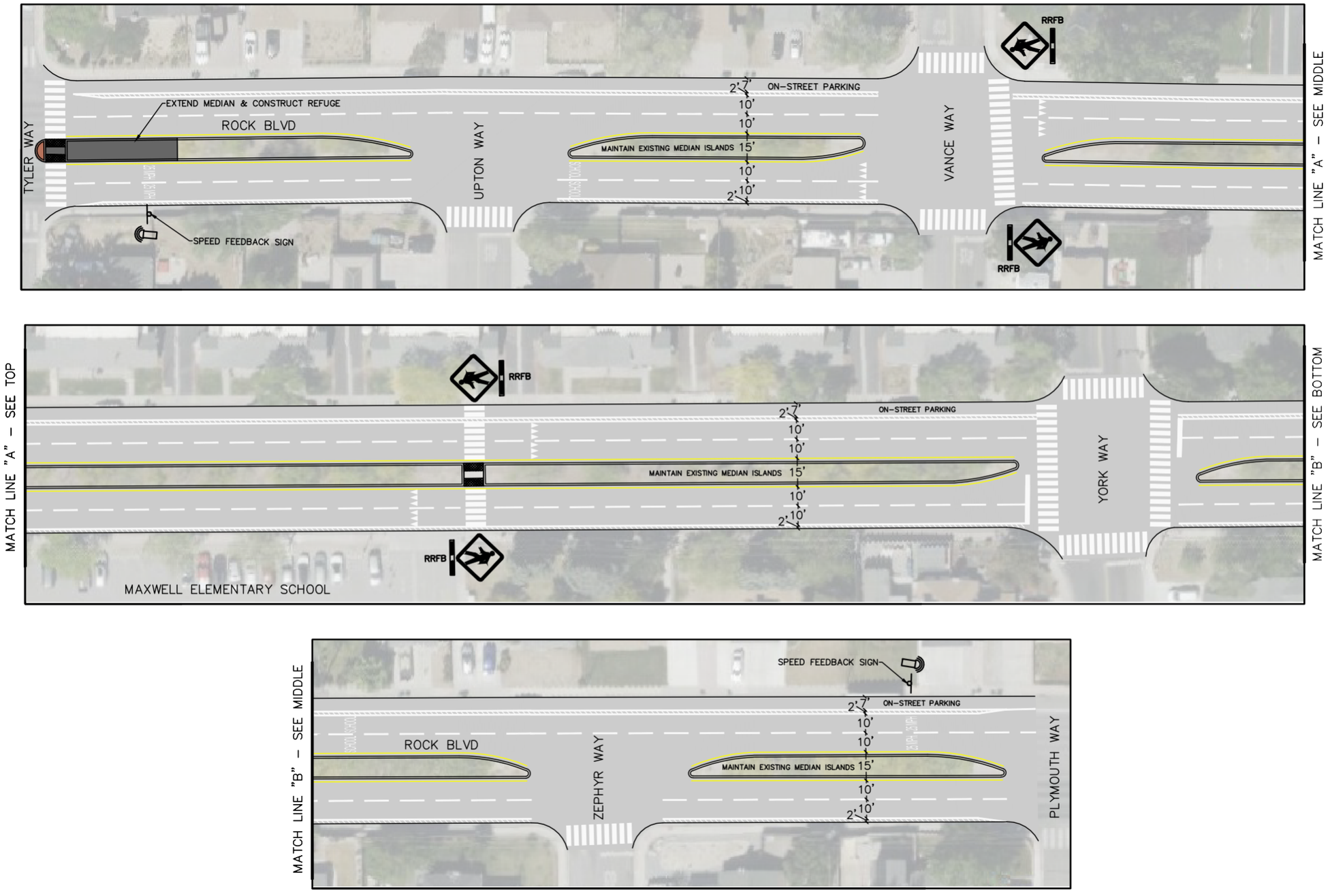
ROCK BOULEVARD CORRIDOR STUDY

1" = 50'

Figure I-3

Rock Boulevard
Corridor Study

Remove C-Street Slip Lane



ROCK BOULEVARD CORRIDOR STUDY

1" = 50'

Figure I-4
Rock Boulevard
Corridor Study
Speed Management (Tyler Wy to Plymouth Wy)

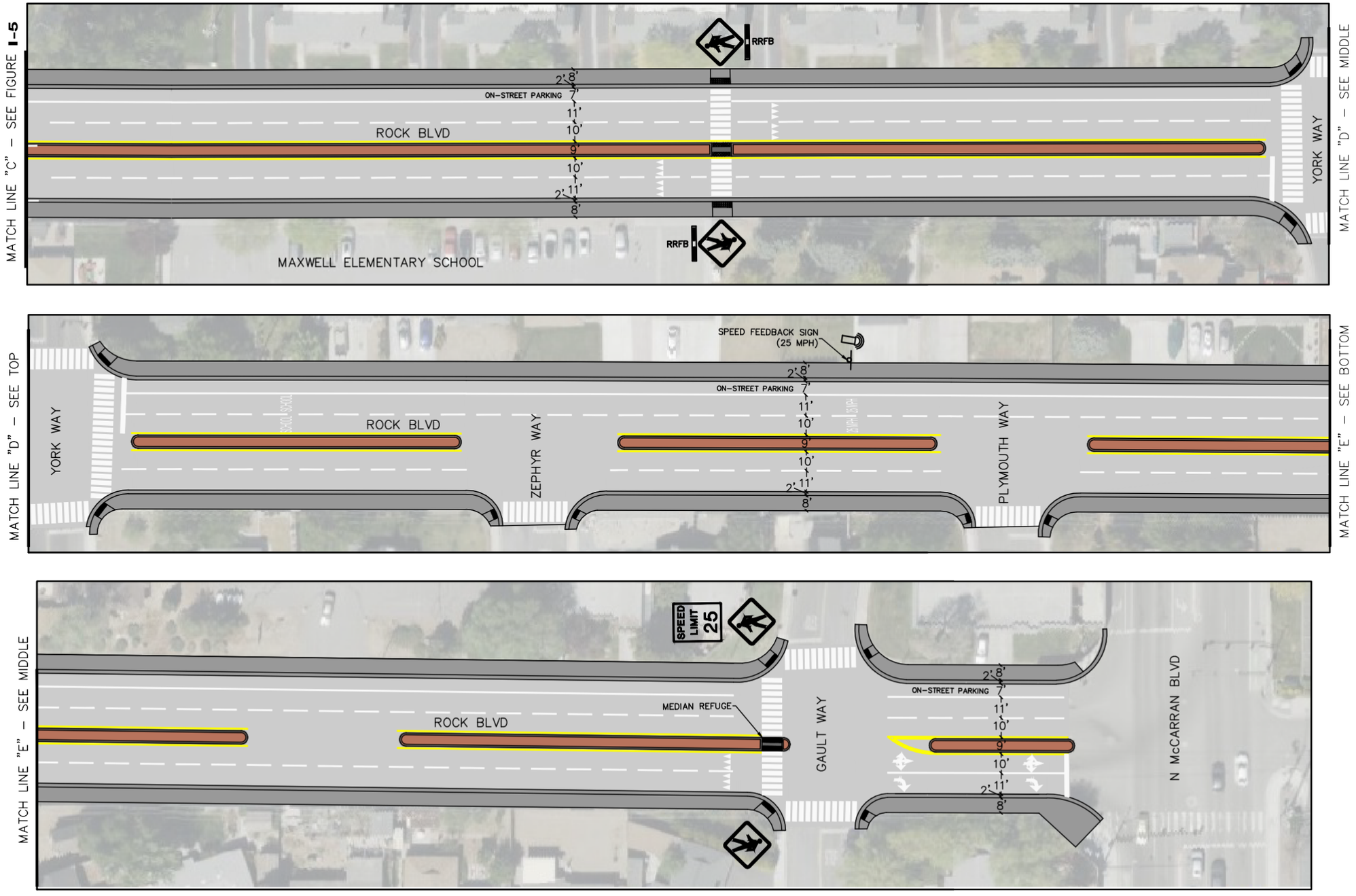


ROCK BOULEVARD CORRIDOR STUDY

N

1" = 50'

Figure I-5
Rock Boulevard
Corridor Study
Widen Sidewalk on Both Sides (B-4)



ROCK BOULEVARD CORRIDOR STUDY

1" = 50'

Figure I-6
Rock Boulevard
Corridor Study
Widen Sidewalk on Both Sides (B-4)

APPENDIX J

Cost Estimate Details

ROCK BOULEVARD CORRIDOR STUDY

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
	$	**80,000**
Wayfinding Signage		
Removal/Demolition/Modification	$	0
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
	$	**50,000**
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
	$	**400,000**
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
	$	**400,000**
Shared Roadway (B-5)		
Removal/Demolition/Modification	$	0
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
	$	**50,000**
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
	$	**700,000**
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
	$	**300,000**

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
	$	**700,000**

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
	$	**70,000**

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
	$	**750,000**

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
	$	**22,000,000**

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
	$	**1,000,000**

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
	$	**300,000**

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
	$ 5,000,000

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, utilties, 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
	$ 15,000,000