

US 195/I-90 TRANSPORTATION STUDY

Final Report

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US 195/I-90 STUDY

PREPARED FOR:



PREPARED BY:



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Introduction

The US 195/I-90 Transportation Study provides a long-range vision for the transportation network in the Latah Valley, Grandview, and Thorpe areas of Spokane and Spokane County, largely around the US 195 corridor from Hatch Road to Interstate 90 (I-90). This study was led by the Spokane Regional Transportation Council (SRTC) in a collaborative effort with the Washington State Department of Transportation (WSDOT), the City of Spokane, Spokane County, and the Spokane Transit Authority (STA).

This study was initiated to address both existing and future challenges related to safety, traffic operations, multimodal access, increasing traffic levels, and limited pedestrian, bicycle, and transit infrastructure in the study area.

When implemented, the recommendations identified in this study will create a more connected network for local trips, improve safety, preserve capacity on US 195 for regional trips, extend the life of the US 195/I-90 interchange, and provide more connections for walking, biking, and using transit to travel within the study area and to key destinations in the Spokane region.

Study Area

The project study area, shown on **Figure 1**, is located within the City of Spokane and Spokane County and covers approximately 19 square miles. The study area is bounded by I-90 to the north, S Grove Road to the west, Hatch Road to the south, and the Division Street interchange to the east. This study focused on 15 study intersections and 15 roadway segments, also identified on **Figure 1**.

Within the study area, the US 195 corridor travels through the Latah Valley. At the north end of the study area, Latah Creek parallels US 195, with only five options to cross the creek and connect to Downtown Spokane. Those crossings are: W Sunset Boulevard, I-90, W 11th Avenue, S Chestnut Street, and S Inland Empire Way. South of the S Inland Empire Way crossing, there is only one public road crossing the creek at S Hatch Road. To the east and west of US 195, steep ridges and bluffs border the Latah Valley.





Why Now?

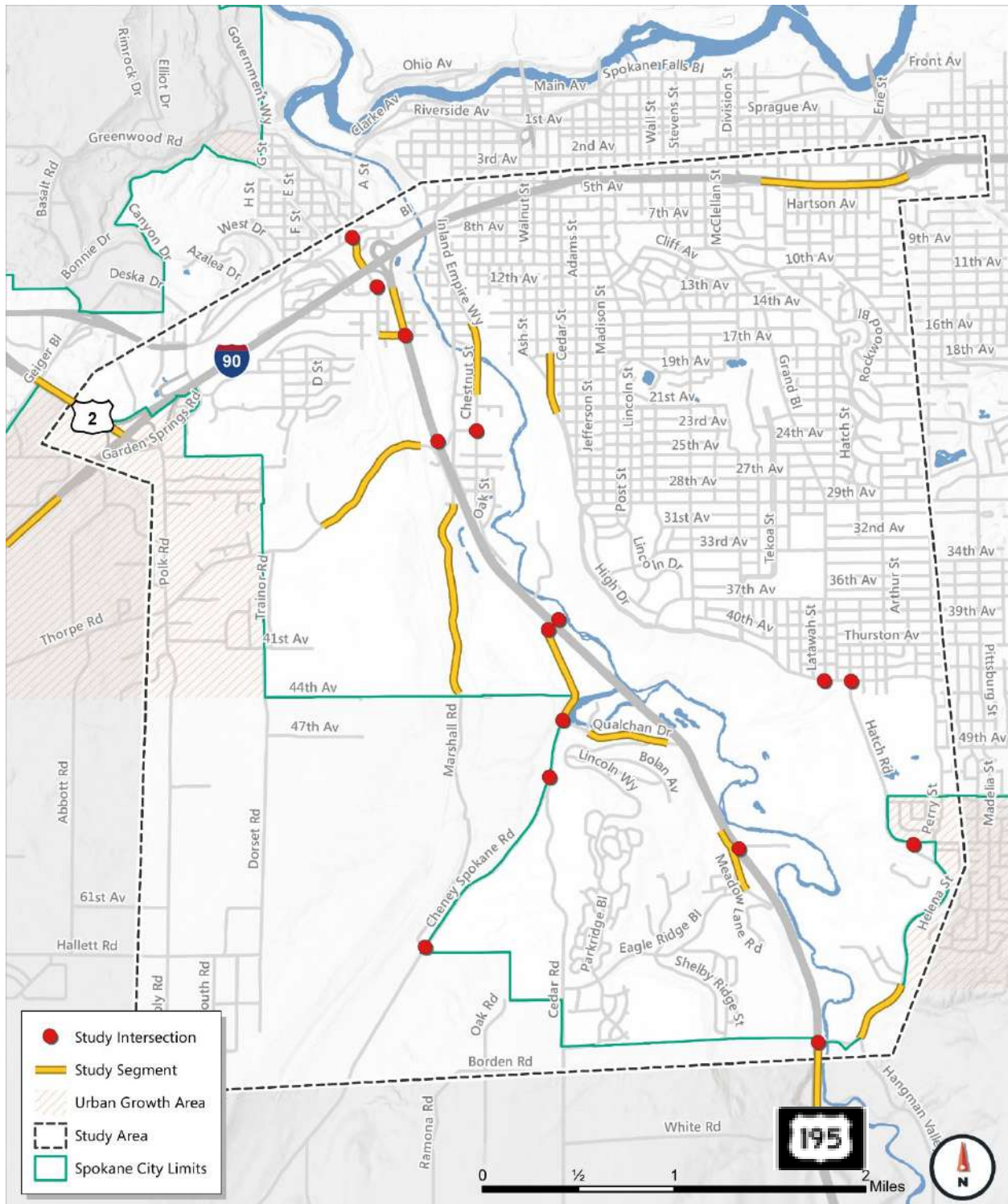
Today, the US 195 merge with I-90 experiences both operational and safety issues. As the Spokane area grows, challenges facing the local and regional transportation system will increase. Major residential and employment growth is expected in the West Plains area, which will increase the number of people and goods traveling east-west between new growth centers in the west and existing centers in the east. With only five options for crossing Latah Creek, pressure on these routes (most notably the I-90 crossing) will intensify.

Within the study area, residential development continues to occur on land that is already zoned for additional development, resulting in an increase in trips using US 195 and the US 195/I-90 interchange. While previous planning efforts have identified improvements for the US 195 corridor, most notably constructing interchanges at key intersections with US 195, only one of the improvements has been built in the last 22 years (the Cheney-Spokane Road interchange) and a more implementable strategy is needed. Moreover, given the rapid growth in the region over the last several years, there is an urgent need for practical, cost-effective projects that can be implemented in the near-term (less than five years) that are also compatible with the long-term vision for the corridor.

A key aim of this study was to take a full systems approach (look at the entire transportation system in the study area) through the lens of Practical Solutions. Practical Solutions is WSDOT's approach to providing mobility with focus on identifying and solving problems and needs through collaboration with partners to make the right investments, in the right places, at the right time, using the right approach to achieve an integrated, sustainable transportation system.

With funding constraints that have limited progress on previously identified improvements over the last 20 years expected to continue, and improvements to the US 195/I-90 interchange alone estimated to cost over \$400 million, now is the time for a more practical, sustainable, and implementable vision for the US 195/I-90 area.

Figure 1. Study Area



Study Goals

Five goals, presented below, were identified for the US 195/I-90 Transportation Study. These goals were developed by the study team through collaboration with the Study Advisory Team and vetted by members of the community through stakeholder interviews and an open house.

Throughout the study, these goals were used to identify projects that best align with the challenges this study was initiated to address. Potential projects were evaluated using a number of different measures to quantify how projects advance the study goals.



Goal #1: Improve Existing and Future Safety Conditions

Achieving this goal means fewer crashes occurring in the study area both at locations with high crash rates today and at locations where crash rates could increase as traffic volume increases in the future. Potential projects advancing this goal include intersection improvements, geometric improvements (e.g., realigning curves), new connections to distribute traffic, new connections/infrastructure for pedestrian, bicycle, and transit travel, or other roadway improvements that would result in a reduced number of crashes.



Goal #2: Maintain Mobility for Local and Regional Trips Including Freight/Goods Movement

Achieving this goal means that the region will be able to maintain and potentially improve mobility for regional trips on I-90 and US 195, while also expanding the mobility for local trips on other roads and modes. Local and regional mobility is a key element of economic vitality because of the importance of getting to work, school, and commercial activities along with the need to move goods and provide services both locally and regionally. Projects advancing this goal improve the transportation system's ability to move people, goods, and services to local and/or regional destinations. In some cases, local and regional mobility were measured separately as they do not always overlap.



Goal #3: Accommodate the Transportation Needs of Planned Development

Achieving this goal means that the study area transportation network can accommodate the additional travel generated by permitted and planned growth within the study area. Projects advancing this goal include additional route options from the study area to commercial and employment areas, more direct connections to existing and potential residential areas within the study area, and intersection or roadway improvements that allow for more efficient use of the local transportation network.



Goal #4: Increase Modal Options such as Walking, Biking, and Transit

Achieving this goal means more connections to local and regional destinations from the study area for users choosing to walk, bike, or take transit. Projects identified as advancing this goal include improved connections to regional trails, pedestrian facilities connecting to transit stops, and multi-modal connections to local retail areas, roadway improvements to allow for buses to better access the area, and park-and-ride access.



Goal #5: Identify Projects That Are Practical, Implementable, and Fundable in a Reasonable Timeline

Achieving this goal means that projects have support from the major stakeholders and get built in a reasonable timeframe. This project goal helped to identify projects with a relatively low barrier to implementation that members of the community could benefit from in less than 10 years. Projects advancing this goal are low-cost, feasible with regard for environmental impacts and right-of-way requirements, and qualify for available funding sources which could include development fees or grants.



Existing Conditions

To develop an understanding of existing transportation conditions, the study team conducted an inventory of facilities for all modes within the study area, collected data to determine how many people are using them today, and performed an operational analysis to understand how the roadways and intersections are serving that demand. This assessment also included evaluating how people are using the system to travel to their destinations and the travel time associated with those trips. This chapter presents a summary of the findings, for more detailed information on existing conditions see the *US 195/I-90 Study Existing Conditions Report*.¹

Land Use & Zoning

Today, the study area is primarily zoned for single-family residential uses. The current zoning is presented on **Figure 2**. As shown, there are several other land uses allowed within the study area including medium density residential north of Thorpe Road, commercial near the Cheney-Spokane Road interchange and a limited amount of residential agriculture to the east of US 195.

Roadway Network & Traffic

Within the study area, WSDOT owns and operates the major highways, which include US 195 and I-90. All other public-access roads within the study area are owned and operated by the City of Spokane and Spokane County. The roadway classification map is shown on **Figure 3**.

Key Travel Patterns

StreetLight Data, which uses anonymous cellphone data to compile the number of trips mobile devices make between predefined geographic zones, was applied to understand where travelers originating in the study area are traveling to and where trips ending in the study originate with a primary focus on trips using the northbound US 195 merge with eastbound I-90.

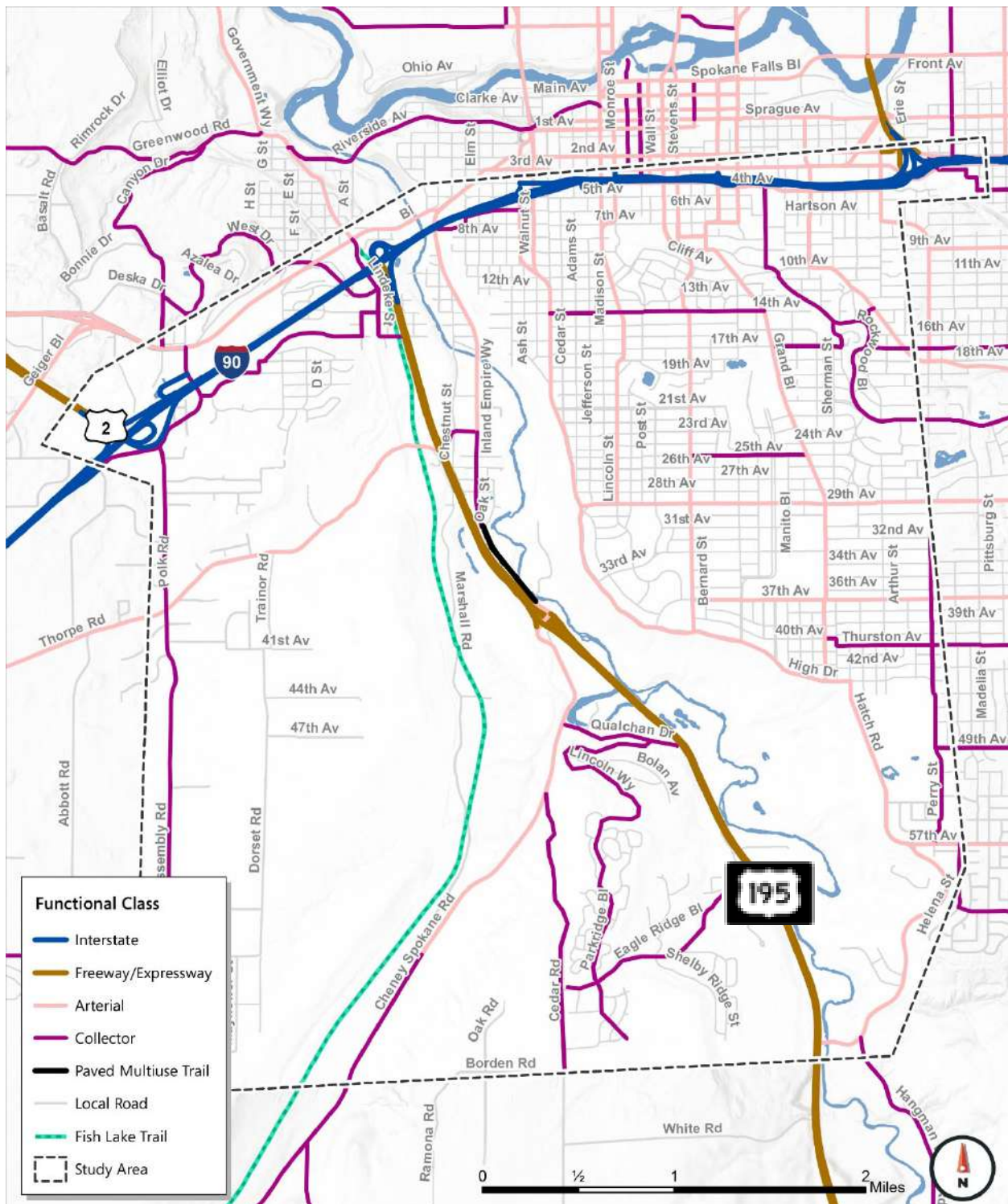
The trips aggregated for this use are recorded by mobile device tracking technology in smartphones which is enabled when a user has a location-based services application turned on. A trip is considered to end when the cellphone is stationary for at least five consecutive minutes. Trips by all modes of transportation are recorded, including people driving, riding in a car, walking, bicycling, riding a bus or traveling by other means.

¹ http://us195transportationstudy.com/wp-content/uploads/2020/11/US_195_Existing_Conditions_Report_Oct2020.pdf

Figure 2. Study Area Zoning



Figure 3. Roadway Classification





Key findings from the StreetLight data for travel during the AM peak hour include:

- 54% of trips using the US 195 northbound ramp to eastbound I-90 originate within the study area west of US 195. This includes Eagle Ridge and the surrounding residential areas, which account for 33% of trips using the northbound ramp to eastbound I-90.
- 14% of trips originate within the study area to the east of US 195, requiring out-of-direction travel to reach the ramp. In other words, these travelers go west to access US 195 then head back east on I-90 to get to their destination.
- 24% of the trips using the northbound to eastbound ramp originate south of Hatch Road on US 195.
- During the AM peak hour, more than 90% of the trips using the northbound to eastbound ramp are destined for one of three areas, each of which have a similar draw: areas of Spokane north of the Spokane River, Downtown Spokane/medical district, and I-90 east of the study area (e.g., Spokane Community College, Spokane Valley, etc.).

Key findings for the PM peak hour include:

- An even greater proportion of trips that originate within the study area and east of US 195 travel out of direction to travel eastbound I-90 via US 195 (21% of all the northbound to eastbound trips, compared with 14% in the morning).
- The largest share of traffic using the northbound to eastbound ramp is from within the study area, west of US 195 (as was the case in the morning), although the share of travel from that area is less (33% in the afternoon versus 54% in the morning—this is reasonable given the strong flow of commuters from this part of the study area).
- 29% of the trips on the northbound to eastbound ramp originate from US 195 south of Hatch Road, a slightly higher proportion than was observed in the morning.
- 41% of trips using the US 195/I-90 northbound-to-eastbound merge have a destination north of the Spokane River, while 31% are continuing east out of the study area. The overall magnitude of people using the northbound to eastbound ramp to access North Spokane, Downtown Spokane/medical district, and points east is about the same as it was in the morning.

The origin and destination findings for the AM and PM peak hours are shown on **Figure 4** through **Figure 7**, respectively.

Figure 4. US 195 Northbound to I-90 Eastbound AM Origins

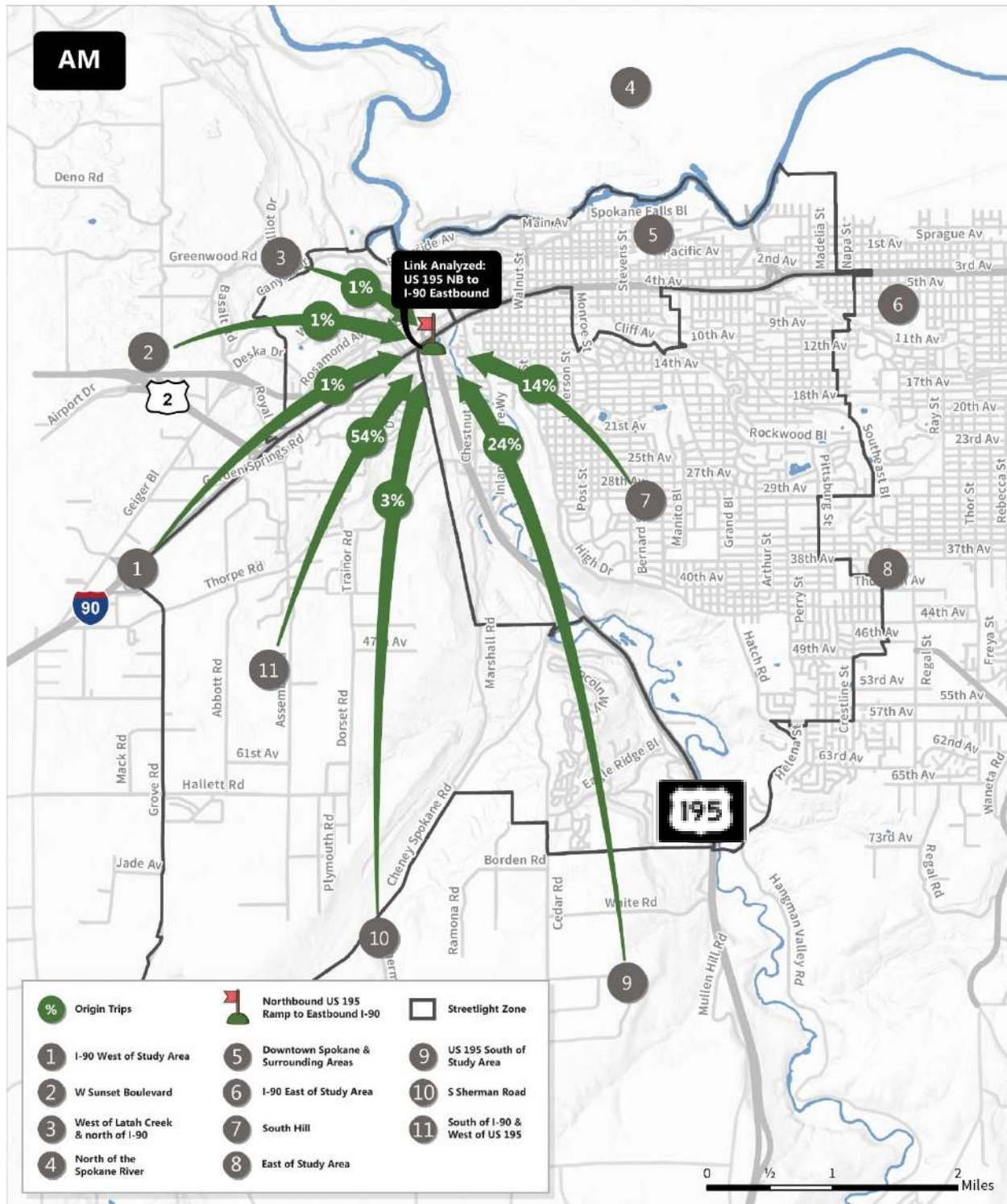
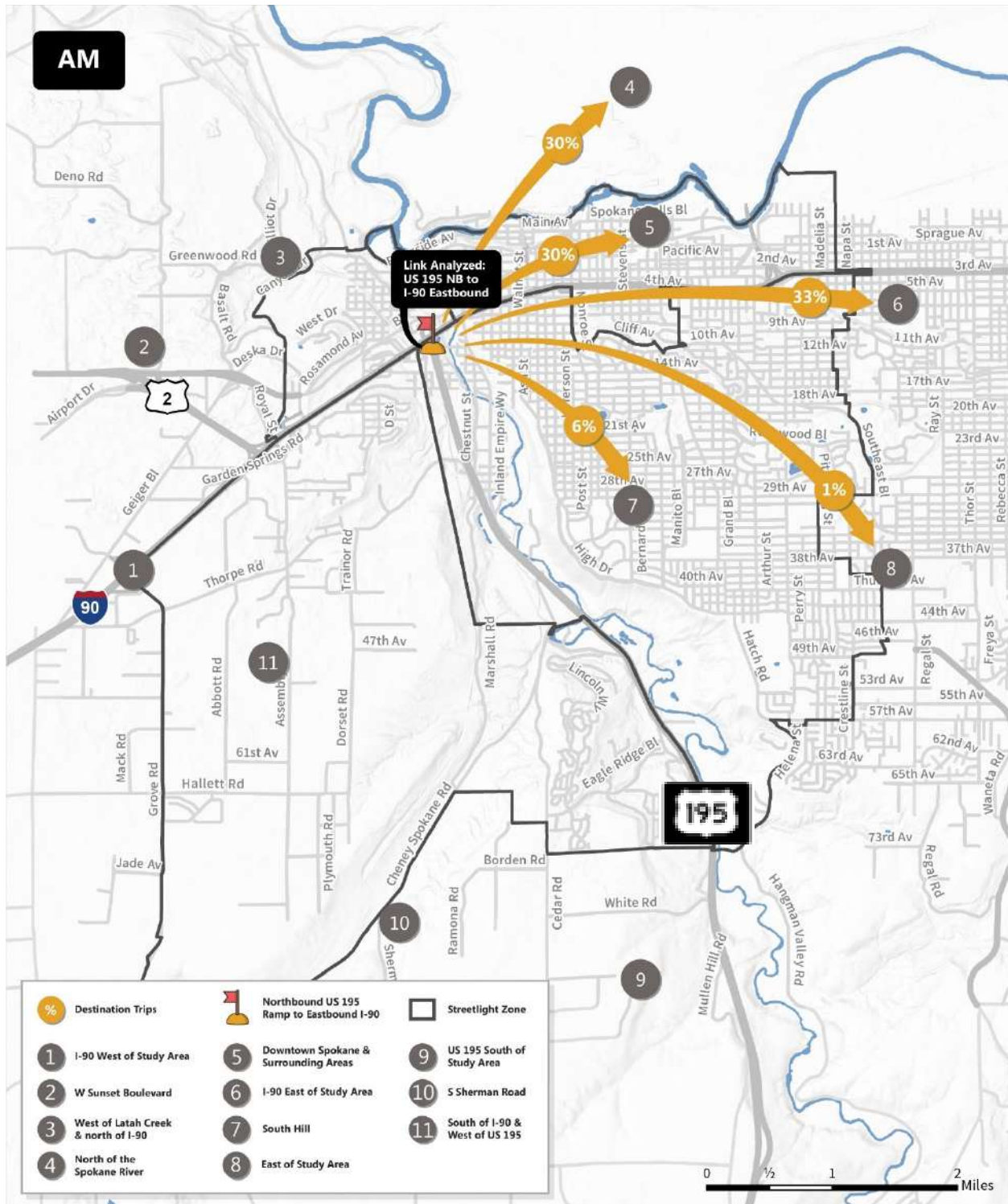


Figure 5. US 195 Northbound to I-90 Eastbound AM Destinations



PM

Link Analyzed: US 195 NB to I-90 Eastbound

195

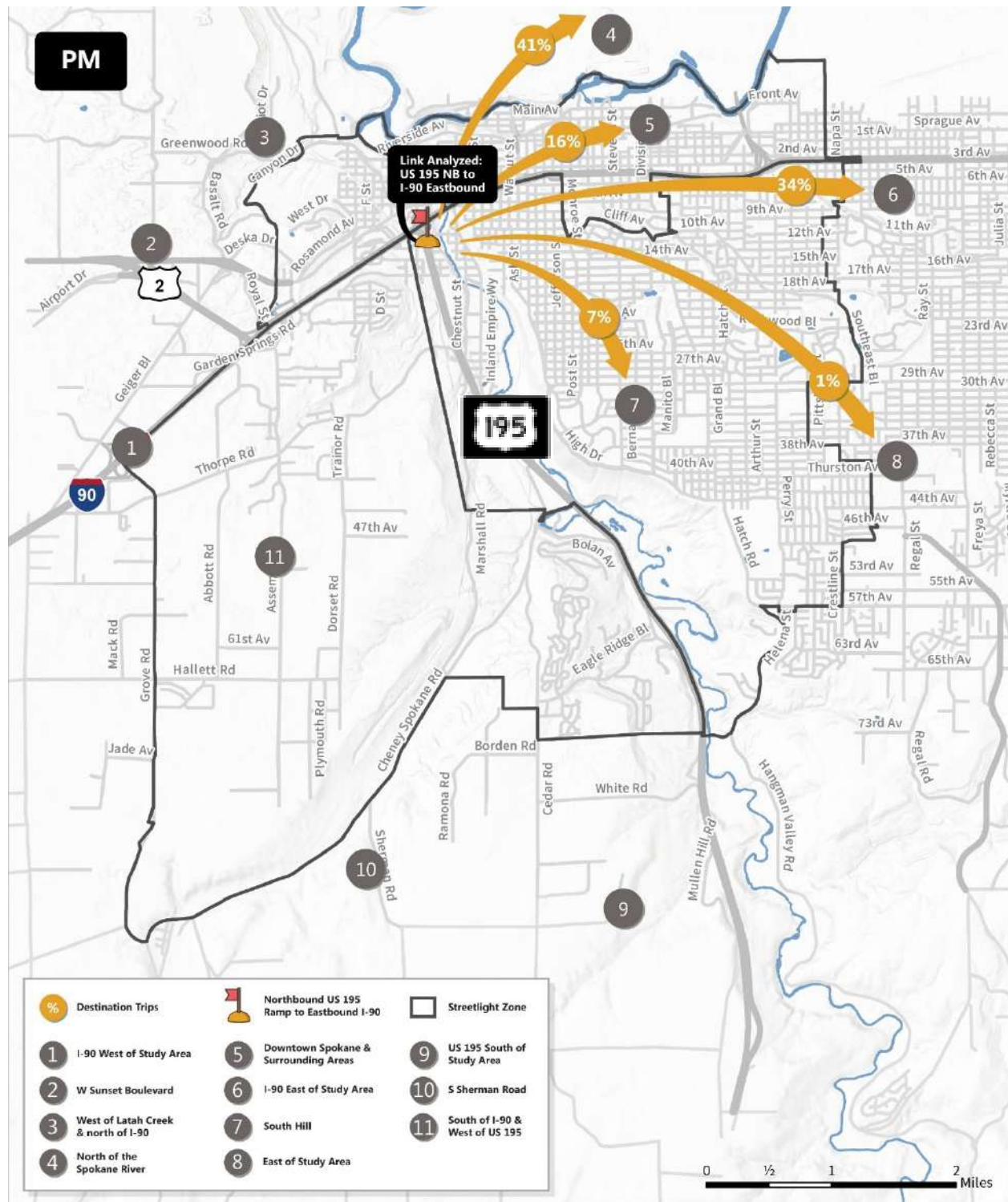
Legend:

- %** Origin Trips
- Northbound US 195 Ramp to Eastbound I-90**
- Streetlight Zone**

1 I-90 West of Study Area	5 Downtown Spokane & Surrounding Areas	9 US 195 South of Study Area
2 W Sunset Boulevard	6 I-90 East of Study Area	10 S Sherman Road
3 West of Latah Creek & north of I-90	7 South Hill	11 South of I-90 & West of US 195
4 North of the Spokane River	8 East of Study Area	

0 1/2 1 2 Miles

Figure 7. PM Peak Hour US 195 Northbound to I-90 Eastbound Destinations





Travel Time

A primary destination for trips originating in the study area is Downtown Spokane and surrounding areas during the AM and PM peak hours. To document travel time under existing conditions and to understand how competitive the different routes are from a travel time perspective, three routes from the study area into Downtown Spokane were selected for travel time collection. Data was collected in February 2020. The three routes were:

- US 195/Hatch Road intersection to downtown Spokane using US 195 to I-90
- US 195/Hatch Road intersection to downtown Spokane using US 195 to Inland Empire Way
- US 195/Hatch Road intersection to downtown Spokane using High Drive

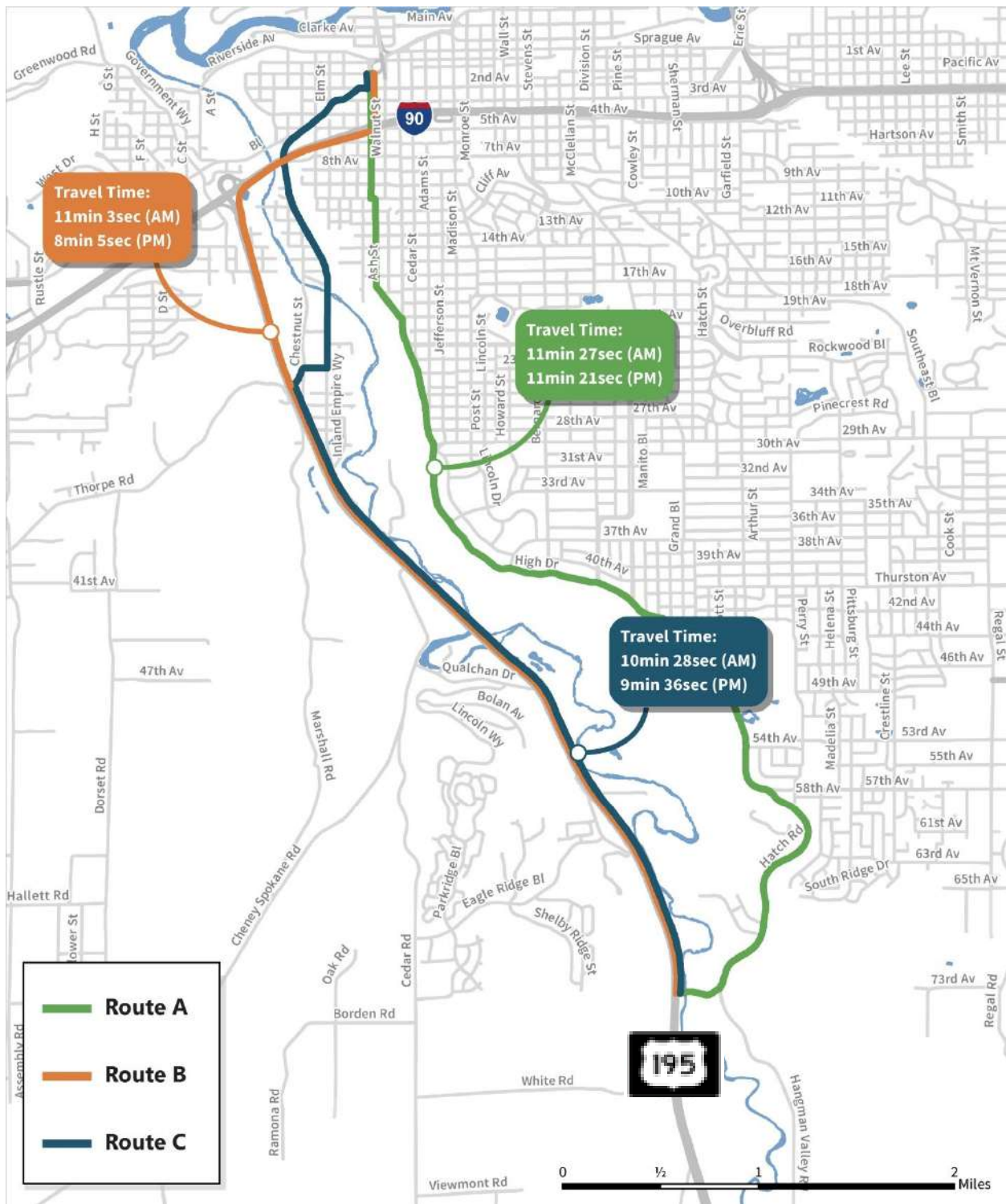
Travel times during the AM and PM peak hours for the respective routes are presented in **Figure 8**.

Findings from this data include:

- The route using High Drive has the highest travel time (approximately 11 minutes and 30 seconds) during both the AM and PM Peak hours. This route would only be competitive for drivers originating near Hatch Road during the AM peak hour, when ramp-meter rates at the I-90 interchange are longest.
- During the AM peak hour when queues for the I-90 ramp reach Thorpe Road, using Thorpe Road to access Inland Empire Way is slightly faster (30 seconds) than using I-90. Travel time using Inland Empire Way remains relatively constant throughout the day.

To quantify the difference in travel time and queueing on US 195 that occurs when the ramp-meter is on, travel time runs using that route were completed several times during the AM peak hour, when volume in that direction is highest, and during off-peak times when the meter was off. During peak-congestion, the ramp-meter added approximately four minutes when compared to off-peak travel times. At peak congestion this route was approximately one minute slower than using Inland Empire Way to access downtown; however, when the ramp-meter is not operating the route using I-90 is approximately three minutes faster.

Figure 8. Travel Time by Route



Level of Service

The City of Spokane and WSDOT use level of service (LOS) to describe and evaluate traffic operations at intersections. Levels range from LOS A to LOS F, which encompass a range of congestion types from uninterrupted traffic (LOS A) to substantial congestion (LOS F) and are based on the Highway Capacity Manual, which is a publication from the Transportation Research Board.

For state highways, WSDOT has adopted a level of service (LOS) threshold of LOS D in Urban Areas. For this assessment, this threshold applies to the intersections along US 195.

The City of Spokane Comprehensive plan establishes the following LOS thresholds that apply to intersections within the study area:

Level of Service Descriptions

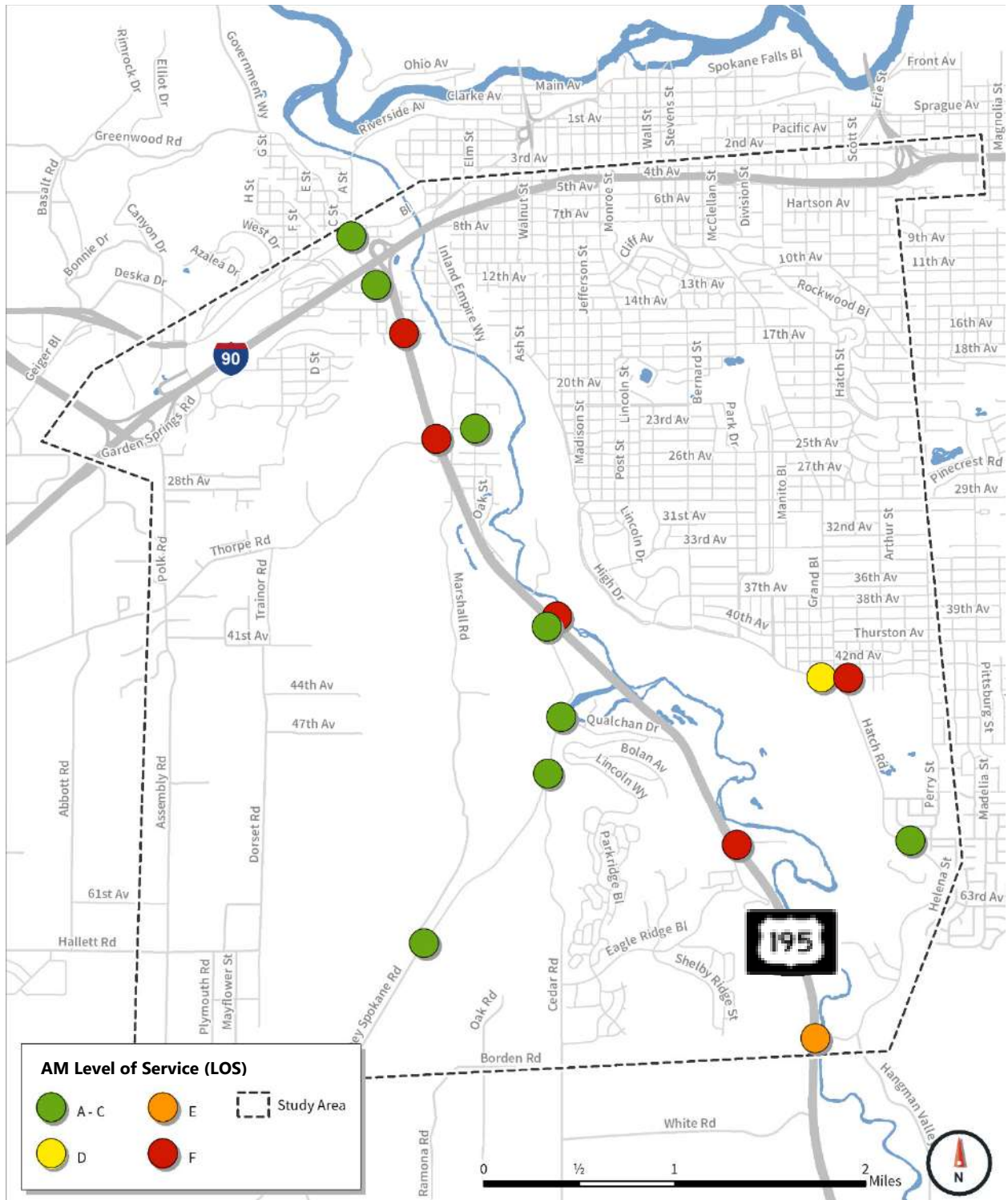
A	Free-flowing conditions.
B	Stable operating conditions.
C	Stable operating conditions, but with some impact.
D	High density of motorists, but stable flow.
E	Near-capacity, with speeds reduced.
F	Over-capacity conditions with long delays.

- LOS E at all signalized arterials intersections along Principal arterials, Minor arterials, or Collector arterials.
- LOS E at all unsignalized intersections. Individual approach movements are analyzed at all unsignalized intersections with two-way stop-control (TWSC). The average delay experienced by all movements is analyzed at all-way stop-controlled (AWSC) intersections.

Existing LOS was evaluated during the AM and PM peak hours using data collected in early February 2020. To account for seasonal variation and the lower traffic volume typically observed on I-90 during the month of February, a seasonal factor was applied to increase traffic volume on WSDOT facilities by 25%. This factor was based on the average volume observed on I-90 during the third, fourth, and fifth busiest months using historical data for 2019 provided by WSDOT (these are summer months when recreational travel is higher). For a more detailed discussion of the methodology used to evaluate LOS, see the *Methodology and Assumptions– US 195/I-90 Study Memorandum* included as Appendix B of the *US 195/I-90 Study Existing Conditions Report*.

Results for the AM and PM peak hour evaluation are shown on **Figure 9** and **Figure 10**. As shown, six intersections were found to operate with unacceptable levels of delay during the AM peak hour. During the PM peak hour, four intersections operate with unacceptable levels of delay. The primary cause for poor operations within the study area was found to be the high level of delay experienced by drivers on unsignalized approaches to US 195. At the northbound US 195 off-ramp and Cheney-Spokane Road, poor operations during the AM peak hour are a result of the high left-turn volume onto the on-ramp, creating high delays for the stop-controlled off-ramp.

Figure 9. Existing AM Peak Hour LOS Results



PM Level of Service (LOS)

Green Circle	A - C	Orange Circle	E	Dashed Line	Study Area
Yellow Circle	D	Red Circle	F		

0 1/2 1 2 Miles

North Arrow

LOS analysis was also completed for the I-90 eastbound off-ramp to US 195, the on-ramp from US 195 to eastbound I-90, and the off-ramp to S Maple Street/S Walnut Street. The traffic density and LOS for the three segments are summarized in **Table 1**.

Table 1. Existing Eastbound I-90 Density & Level of Service

Location	Facility Type	AM Peak Hour		PM Peak Hour	
		Density	LOS	Density	LOS
US 195 Off-Ramp	Diverge	25	C	28*	C*
Mainline between US 195 Ramps	Basic	18	B	25*	C*
US 195 On-Ramp	Merge	35	D	31*	D*
US 195 Off Ramp to S Maple Street/ S Walnut Street	Diverge	16	B	16*	B*

Note:

* In the PM peak hour, traffic congestion on I-90 from the SR 290/Hamilton Street interchange can occasionally spill back beyond the US 195 interchange. During these conditions, the freeway operates at stop-and-go conditions (LOS F).

Traffic Safety Analysis

The traffic safety analysis was primarily focused on three intersections along the US 195 corridor within the study area: US 195 & W 16th Avenue, US 195 & E Meadow Lane Road and US 195 & S Hatch Road. Five years of crash data (from 2015 – 2019) were mapped (see **Figure 11**) and analyzed with prime focus on circumstances resulting in the crashes and severity, which looks at severe and fatal collisions (KSI) and injury collisions.

It should be noted that Thorpe Road was not considered as part of this analysis due to the recently completed J-turns at that intersection, which were constructed to improve safety at the intersection by eliminating left-turns and through movements across US 195.

The figure summarizes the 2015 to 2019 traffic crashes at these critical intersections along US 195. A total of 44 crashes were recorded and no apparent injuries were reported for almost 60 percent of cases. There were no fatalities at the studied intersections during the specified time period. Three severe injury crashes were reported, and all were at the intersection of US 195 and E Meadow Lane Road. The most prevalent circumstance reported was inattention or distracted driving. **Table 2** summarizes the crash analysis.

Figure 11. US 195 Collisions at Study Intersections

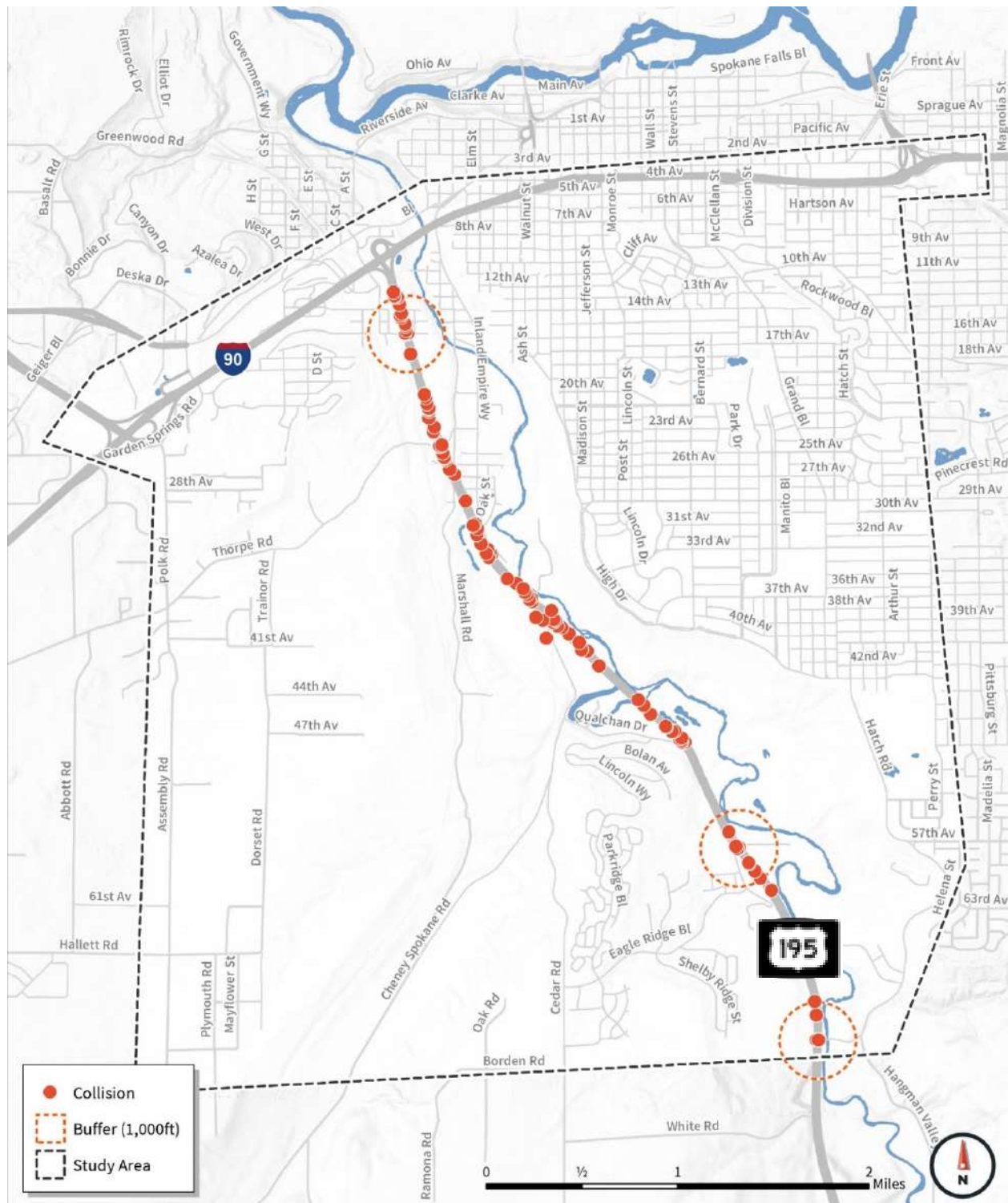


Table 2. Crash Analysis Summary (2015-2019)

Intersection	Total Crashes	No Apparent Injury Crashes	Minor and Possible Injury Crashes	Severe Injury Crashes
US 195 & W 16 th Avenue	16	11	5	0
US 195 & E Meadow Lane Road	15	7	5	3
US 195 & S Hatch Road	13	7	6	0
Total	44	25	16	3

Bicycle & Pedestrian Infrastructure

Today, the primary facility for bicyclists and pedestrians is the Fish Lake Trail. The Fish Lake Trail is a shared use path that connects West Spokane to Queen Lucas Lake. When complete, the trail is planned to connect the Centennial Trail to Fish Lake Regional Park and the existing paved trail to the south. While the Fish Lake Trail traverses the study area, connecting to the trail from the study area can be challenging due to the lack of comfortable connections for bicycles and pedestrians using the existing roadway network. Field observations indicate that many users access the trail via the trailhead near Sunset Boulevard.

In addition to the Fish Lake Trail, there are three other shared use paths and one soft surface path in the study area:

- A paved pathway from Inland Empire Way to Cheney-Spokane Road, which crosses over US 195 at the Cheney-Spokane Road interchange
- A loop in the Eagle Ridge neighborhood
- S Assembly Road to W 16th Avenue through the Trolley Trail Conservation Area (soft surface path)

There are a several shared use facilities (roads where a bike route is designated but there are no bike lanes or areas specifically designated for bikes) within the study area including:

- Thorpe Road
- W Westwood Lane
- S Lindeke Street
- Inland Empire Way north of W 23rd Avenue
- Cheney-Spokane Road south of the Yokes Retail Center
- Qualchan Drive
- W Lincoln Boulevard
- Eagle Ridge Boulevard
- Hatch Road from US 195 to 57th Avenue

While several the roadways within the study area are designated as shared use facilities, the conditions for bicyclists may not be comfortable for riders of all ages and all abilities. Thorpe Road, Cheney-Spokane



Road, and Hatch Road are higher speed roadways that have areas where there is little to no shoulder available for bicyclists.

In the study area bike lanes are provided on:

- Hatch Road north of 57th Avenue
- High Drive
- S Cedar Street from Maple Boulevard to 5th Avenue
- Cheney-Spokane Road from US 195 to the Yokes Retail Center

Within the study area sidewalks are limited to residential areas, primarily within the Eagle Ridge neighborhood. Sidewalks are provided on Inland Empire Way but are not continuous and there are portions that are narrow or in poor condition.

Transit Service

Spokane Transit Authority (STA) operates fixed route bus and paratransit service to the cities of Spokane, Spokane Valley, Airway Heights, Cheney, Liberty Lake, Millwood, and portions of unincorporated Spokane County. Spokane Transit runs several routes at the edges of the study area, including express and basic service on I-90, basic service on Sunset Boulevard, and a combination of basic, frequent, and express service on the South Hill. There is also an existing Park & Ride lot underneath the I-90 viaduct at Jefferson Street, utilized by routes serving the West Plains. There is currently no service along the US 195 corridor, or to the adjacent neighborhoods. There are several vanpools that originate within the study area and users within three-quarters of a mile from routes operating on I-90 and in the South Hill area are served by paratransit services.

Until 2011, STA operated Route 41, which served the Vinegar Flats area, but was discontinued due to low ridership. Several of the roadway network characteristics described above limit the ability of transit providers to efficiently serve the study area, including:

- Limited sidewalks to connect users between transit stops and destinations.
- A disconnected roadway network that limits STA's routing options and ability to create a route that serves a larger population.
- Topography including Latah Creek, steep ridges, and bluffs limit options for cost-effective new connections.
- The narrow width of the Thorpe Road tunnels, which are inconvenient for large vehicle access.

Future Conditions

This chapter presents the baseline future conditions which establishes how the transportation system will operate with the expected growth if no improvements are made. While we understand where improvements are needed today, this evaluation identified locations where the current system cannot accommodate the expected growth and will serve as a baseline for comparison when identifying the benefits of mobility improvements being evaluated as part of this study.

Land Use Market Analysis

To confirm that the growth forecast within the study area aligns with economic conditions, a market analysis was completed for this study. The market analysis for this study looked at the economic market paired with opportunities and barriers for development within the US 195/I-90 study area to determine how much growth can be reasonably expected to occur over the next 20 years, including growth expected to occur in the near term (less than five years). The documentation, including the methodology and findings, can be found in the *US 195/I-90 Market Analysis & Development Forecast Memorandum*². A summary of expected employment and household growth is presented in **Table 3** below.

Table 3. US 195 Study Area Market Analysis 20 Year Land Use Forecasts

Units	New Dwelling Units		New Employment (Building Square Feet)					
	Single family	Multi family	Retail	FIRES*	Hotel	Industry	Medical	Office
Units/Sq. Ft.	2,548	1,418	129,500	49,240	270,000	40,000	41,000	68,600
Emps/Sq. Ft. ¹	-	-	300	180	600	400	250	160
Est. Jobs	-	-	432	271	493	100	164	423
Totals	3,966 units		1,883 jobs					

Source: LCG; *Denotes Finance, Information, Real Estate Services

Note: ¹ Emps/Sq. Ft. = employees per square foot

A similar effort was also completed for the West Plains Sub-Area Plan, a study being led by WSDOT, that is evaluating future conditions in the West Plains area, just west of the US 195/I-90 study area around Airway Heights and the Spokane International Airport. To accurately reflect conditions on I-90 and on the local roadway network with connections to the West Plains area the land use developed for that study was

² http://us195transportationstudy.com/wp-content/uploads/2021/04/LCG-US195-I90-Study-Market-Analysis_Final-03-2021-1.pdf



also included in the model land use update. A summary of expected growth in the West Plains is also included in **Table 4**, while the documentation and findings for the market analysis are included in the *US 195/I-90 Market Analysis & Development Forecast Memorandum*.

Table 4. West Plains Study Area Market Analysis Forecasts

Units	Dwelling Units		Employment (Building Square Feet)					
	Single family	Multi family	Retail	Other/ Misc ¹	Hotel	Industry	Storage ³	Office
Units/Sq. Ft.	2,635	1,899	1,721,967	270,000	268,185	6,263,141	470,076	328,768
Est. Jobs ²	-	-	1,552	-	250	8,214	-	1,966
Totals	4,534 units		11,982 jobs					

Source: LCG; *Denotes Finance, Information, Real Estate Services

¹Other/Misc refers to non-specific commercial uses associated with the potential development on Tribal lands which may include hotel(s), entertainment uses, retail, etc.. As part of the forecasting efforts for this project, new employment associated with these uses was included in retail estimates.

²These employment projections are calculated using a combination of direct employment inputs for planned and under construction projects with known project details and estimated forecasts for project development using industry average standards for square footage per job (the rationale for which is provided on the following page).

³Storage is not included as a land use input in the travel demand model. Therefore, new employment associated with this growth was included in the Industry employment estimates.

Travel Forecast

Traffic forecasts for 2040 were developed for all study roadway segments and intersections. Traffic forecasts were developed by applying the growth derived from the future year and base year travel demand models to traffic volume data collected in the field.

Table 5 summarizes the annual growth rates for each of the study roadway segments based on growth forecasts.

During the AM and PM peak hour, traffic volume growth within the study area is forecast to grow at an average rate of 2% per year over the next 20 years. This level of growth is typical of fairly fast-growing areas. A historical review of traffic volumes along US 195 and I-90 indicates annual growth rates of 2% between 2018 and 2019, confirming that the model forecasts align with recent trends in the study area.

As shown in **Table 5**, there are several locations where the forecasted annual growth rate is significantly higher than the 2% per year average within the study area. These locations include:

- S Meadow Lane Road during the AM and PM peak hour
- Marshall Road during the AM and PM peak hour
- Thorpe Road during the AM and PM peak hour



- W 16th Avenue during the AM peak hour
- S Lindeke Street during the AM and PM peak hour
- Inland Empire Way during the AM and PM peak hour
- Hatch Road during the AM peak hour
- Qualchan Drive during the PM peak hour

On Marshall Road, the 7% annual growth rate is a result of low volume under existing conditions (less than 10 trips during both peak hours). The large growth rates on W 16th Avenue, S Lindeke Street and Inland Empire Way are a result of local routes becoming more travel time competitive as congestion on I-90 and volume at the northbound US 195 merge increase in the future.

Table 5. Forecasted Annual Growth Rate for Roadway Segments

Roadway Segment		AM Peak Hour		PM Peak Hour	
		NB/EB	SB/WB	NB/EB	SB/WB
1	Northbound US 195 south of Hatch Road	1%	0%	1%	0%
	Southbound US 195 south of Hatch Road	0%	1%	0%	1%
2	S Meadow Lane Road west of US 195	6%	5%	6%	5%
3	Cheney-Spokane Road between US 195 and W Qualchan Drive	2%	1%	1%	2%
4	Marshall Road south of Thorpe Road	7%	0%	2%	7%
5	Thorpe Road east of US 195	3%	6%	5%	4%
6	W 16 th Avenue between US 195 and S Lindeke Street	1%	5%	3%	2%
7	Westbound I-90 west of Grove Road Interchange	0%	2%	0%	1%
	Eastbound I-90 west of Grove Road Interchange	1%	0%	2%	0%
8	Eastbound US 2 west of I-90	0%	0%	2%	0%
	Westbound US 2 west of I-90	0%	2%	0%	1%
9	S Lindeke Street south of W Sunset Boulevard	4%	1%	4%	4%
10	Northbound US 195 south of I-90	3%	0%	3%	0%
	Southbound US 195 south of I-90	0%	2%	0%	3%
11	Inland Empire Way just north of Thorpe Road	4%	7%	6%	9%
12	S Cedar Street between 16 th Avenue and 17 th Avenue	1%	1%	1%	2%
13	Hatch Road between Hangman Valley Road and E 57 th Avenue	3%	4%	2%	3%
14	Eastbound I-90 east of Division Street Ramps	0%	0%	0%	0%



	Westbound I-90 east of Division Street Ramps	0%	1%	0%	1%
15	W Qualchan Drive	1%	3%	2%	4%

Final forecasts for the study roadway segments and detailed model output information is included in the *US 195/I-90 2040 Baseline Conditions Technical Memorandum*³.

Future Level of Service

Traffic operations analysis was completed for the freeway facilities and intersections within the area to understand how these facilities would operate in 2040 without any improvements in the study area. This assessment was then used to identify areas where the existing network may not be deficient today but will be by 2040 and served as a baseline against which proposed mobility improvements were measured.

Intersection Operations

By 2040, most study intersections will operate deficiently at LOS E or F during the AM and PM peak hours. This is a result of an increase in traffic volume on primary roadways in the study area including US 195, Meadow Lane Road, Cheney-Spokane Road, and Hatch Road. Most intersections along these roadways are side-street stop controlled; therefore, as volume on the main street increases the gaps for side-street traffic decrease causing drivers on the side-streets to experience long wait times.

This is true along the US 195 corridor, where an increase in volume in the northbound direction during the AM peak hour and the southbound direction during the PM peak hour create fewer opportunities for side-street traffic to go, resulting in high levels of delay for local trips attempting to access the US 195 corridor and LOS F operations for all intersections.

At the northbound US 195 off-ramp and Cheney-Spokane Road, poor operations are a result of the high left-turn volume onto the on-ramp, creating high delays for the stop-controlled off-ramp.

Figure 12 and **Figure 13** show the LOS results during the AM and PM peak hour, respectively. Technical calculations can be found in the *US 195/I-90 2040 Baseline Conditions Technical Memorandum*.

³ http://us195transportationstudy.com/wp-content/uploads/2021/04/3B_Future_Conditions_March_2021.pdf

Figure 12. 2040 AM Peak Hour LOS

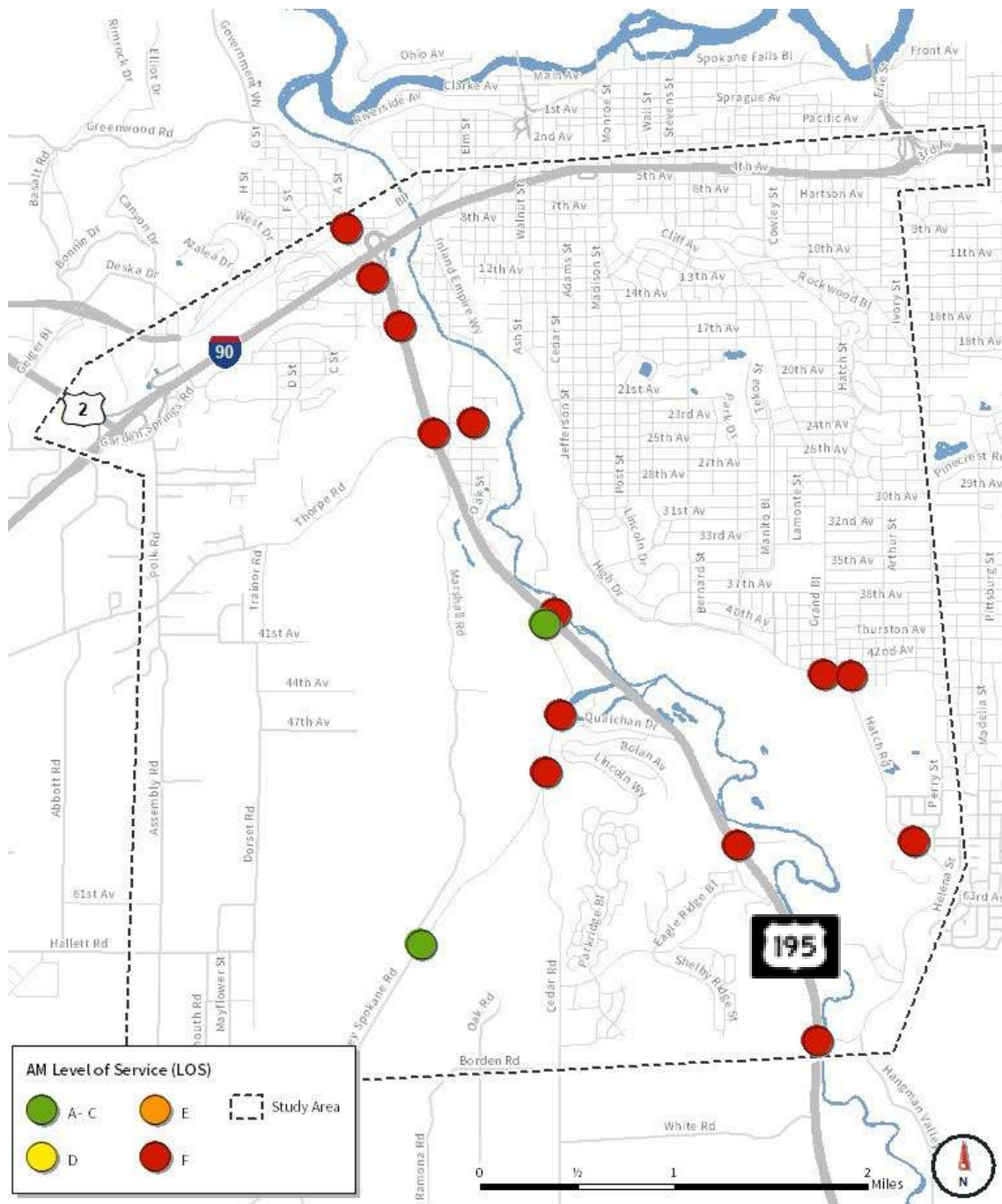
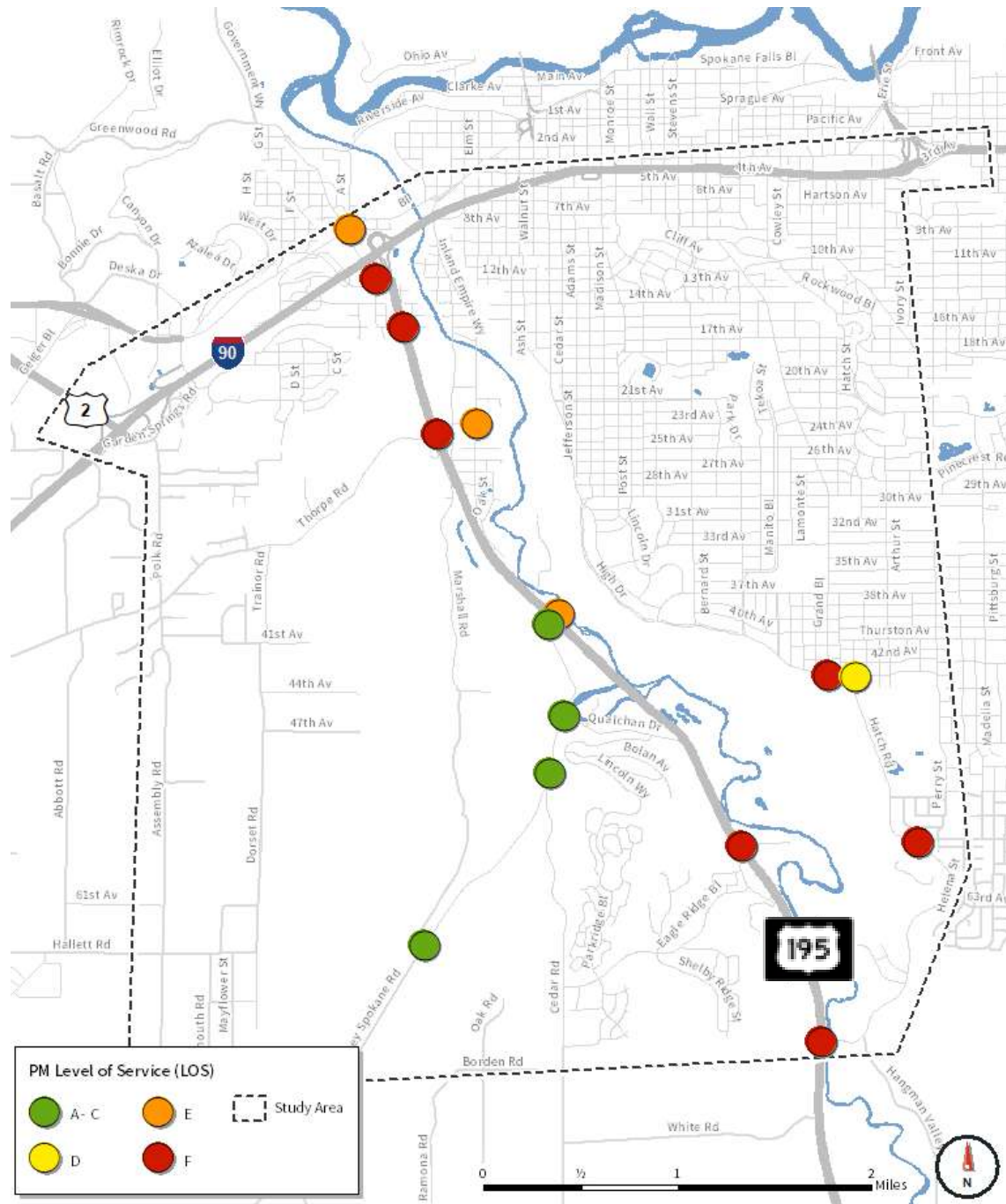


Figure 13. 2040 PM Peak Hour LOS





Freeway Operations

As a key facility within the study area, LOS analysis was completed for I-90 between the US 195 diverge and the S. Maple Street diverge in the eastbound direction. This analysis was completed using the traffic volume presented above and Highway Capacity Software (HCS).

As shown in **Table 6**, during the AM peak hour, the freeway segments analyzed will operate at LOS C or D, which is considered acceptable operations based on WSDOT's standards. Only the northbound US 195 merge with I-90 will operate at LOS E, which is considered unacceptable operations. During the PM peak hour, an increase in demand on I-90 by 2040 will result in unacceptable operations for all freeway segments.

Table 6. 2040 Eastbound I-90 Density & Level of Service

Location	Facility Type	AM Peak Hour			PM Peak Hour		
		Density (pc/mi/ln)		LOS	Density (pc/mi/ln)		LOS
		Freeway	Ramp		Freeway	Ramp	
US 195 Off-Ramp	Diverge	29	31	D	41	40	F
Mainline between US 195 Ramps	Basic	24	-	C	36	-	E
US 195 On-Ramp	Merge	43	39	E	45	38	F
US 195 Off Ramp to S Maple Street/ S Walnut Street	Diverge	40	29	D	42	32	F

Bold font indicates unacceptable operations.



Community Engagement

Stakeholders and community members were engaged at three key points in the study. First, one-on-one interviews with stakeholders helped inform issues and opportunities along the study corridor. Next, the community members were asked to provide input on the draft goals and to identify any additional locations where the study should identify improvements. In the last community engagement event, the community was asked to provide their input on two potential packages of projects. Their input was then used to inform development of the list of recommended improvements.

Stakeholder Interviews

The study team completed 18 one-on-one stakeholder interviews with different agency representatives, community groups, and business owners within the study area. These interviews were focused on understanding critical issues, desirable outcomes, known plans or developments in the study area, and how to keep local perspectives front of mind throughout the process. A few takeaways that were consistent across multiple interviews are:

- Safety improvements both at the I-90 merge and local intersections with US 195 are viewed as a critical need across all groups.
- Utilities are in place, capacity exists, and zoning is designated for low-to-medium density development to continue within the study area.
- There are several large areas of land that could be developed if transportation infrastructure was improved to provide access to land.
- Growth in the West Plains area will contribute to the need for improvements in the study area, particularly along I-90.
- Improvements to provide more direct access to Inland Empire Way are needed to support growth and limit short local trips from causing delay for regional trips.
- More connections for all modes should be identified as part of this study so that people have more options when they want to use them.

A complete list of stakeholders is included as Appendix E of the *US 195/I-90 Study Existing Conditions Report*.

Community Engagement Event #1



The study team hosted a community workshop in the study area in early February 2020. The focus of this workshop was to provide the community with an overview of the study, gather input on the draft goals, understand the issues the community faces when using the US 195/I-90 corridor, and understand which modes the community would like to see prioritized in specific portions of the study area.

For community members who could not attend the workshop, an online workshop was also available through early March where visitors could provide the same input gathered in-person.

Approximately, 95 community members attended the in-person workshop, 28 community members completed the online goals survey, and 22

areas of concern were identified on the online pin-map. The input gathered on goals and issues is summarized below. To review the materials presented at the in-person workshop, see **Appendix A**.

The Goals

Nearly 70 percent of visitors that took the online survey felt that the important goals that this study should focus on were included. Community members who attended the workshop added eleven

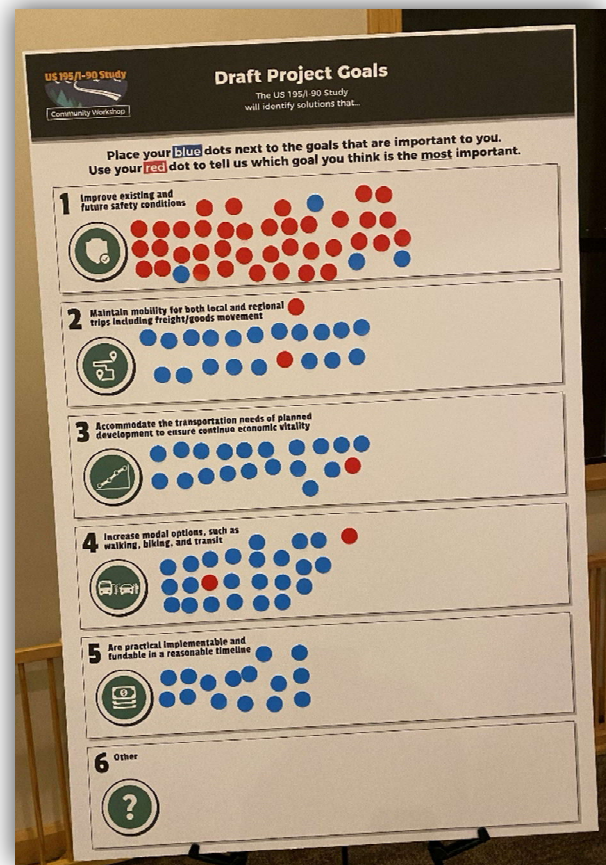


additional goals that could be considered, while some additions focused on spot-improvements that should be considered, managing growth from development in the area and protecting the natural environment was also identified by several members.

Community members were also asked to identify which goals are most important to them. Both in-person and online participants identified improving safety as the most important. While in-person feedback did not distinctly identify a second goal as most important, 67 percent of online survey takers identified solutions being implementable and fundable on a reasonable timeframe as being an important goal.

The Issues

Both in-person and online, participants were asked to identify locations with transportation challenges. These challenges could include missing connections, safety concerns, and congestion hot spots. Participants were asked to provide input by mode and a summary of the input provided is below.



Bicycles & Pedestrians

- The trail connecting Vinegar Flats down to Cheney-Spokane Road and Qualchan Drive needs improvements.
- Connections from Eagle Ridge to other regional trails are needed to create regional connectivity.
- Trail and sidewalk connections to amenities like the retail and restaurants on Cheney-Spokane Road are needed.
- Cheney-Spokane Road and Qualchan Drive often have bicyclists and pedestrians using the narrow shoulders or the travel lane, which is uncomfortable for people walking or biking.

Community members weighed in on the project goals that were most important to them, with red dots indicating their top priority.

Vehicles & Freight

- The I-90 merge feels unsafe and while the ramp-meter has reduced the number of crashes occurring, it has not entirely solved the problem.
- Local intersections with US 195 feel very unsafe: 16th Avenue, Meadow Lane Road, and Hatch Road were all identified as locations of primary concern.



- Qualchan Drive has seen an increase in traffic and speeds and is not designed to accommodate the increased usage.
- At the south end of the study area, options for wildfire evacuation with the existing roadway network are limited.
- The current configuration at Hatch Road creates queueing that extends up Hatch Road during peak hours.
- More east-west connections are needed for drivers who want to avoid the I-90 merge from northbound US 195.
- Acceleration and deceleration lanes are needed at local intersections with direct access to US 195.

Transit

- There is a lack of paratransit and Park & Ride services available in Eagle Ridge.

Modal Accommodation

Community members were asked to identify where several different modes and trip types should be accommodated within the study area. Modes included bicyclists, pedestrians, transit, personal vehicles, and freight. For trip types, participants were asked to distinguish between local and regional trips. They were then asked if those modes should be accommodated on US 195, on parallel or local routes, or not accommodated at all.

When asked which users should be accommodated on US 195 online respondents identified the following modes:

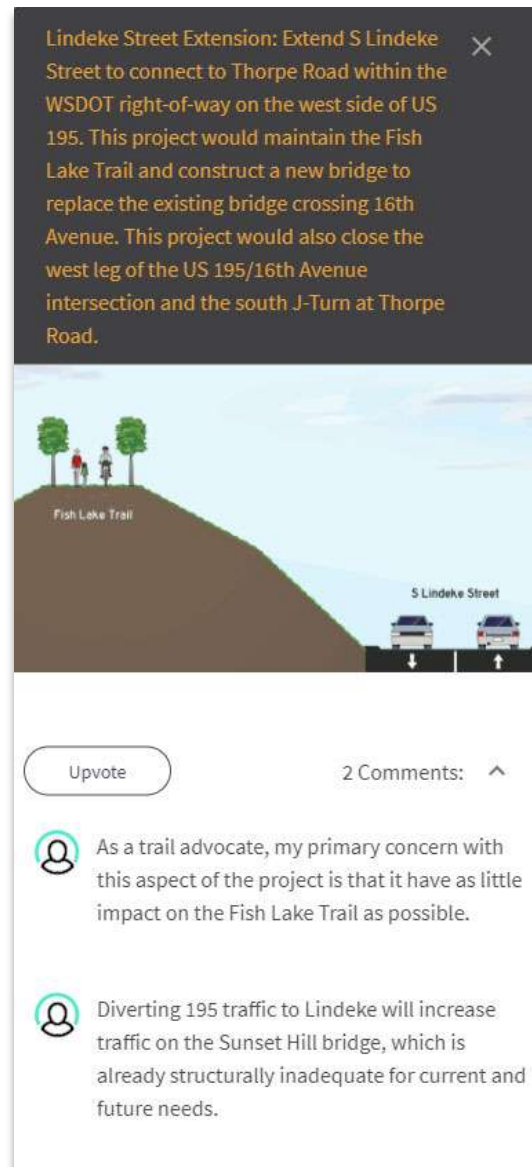
- 23 survey takers selected local trips
- 14 selected regional trips and freight
- 13 selected transit

In-person feedback identified similar trip types and modes with local, regional, and freight being identified as the primary modes requiring accommodation on US 195. Approximately 20 attendees also identified transit as a mode that should be accommodated on US 195.

Community members were also asked to identify which modes should be accommodated off of US 195 on a parallel facility or other local route. Both in-person and online participants identified bicyclists and pedestrians as the primary modes that could be served off US 195. Some people also identified local trips and transit as modes that could be served off US 195. Both in-person and online feedback indicated approximately 35 percent of participants selected this as the ideal option to serve local trips and transit.

When asked which modes do not need to be accommodated within the study area, in-person and online respondents identified pedestrians as the primary mode not requiring accommodation. Bicyclists were the only other mode identified by multiple people as not requiring accommodation by both sets of participants.

Community Engagement Event #2



Due to local health guidelines resulting from the COVID-19 pandemic, the second community engagement event was hosted entirely on the project website and featured an online open house. By visiting the project website, community members could view the two packages of projects, a comparison of how the two packages advance the project goals and share comments and feedback on individual projects and the two packages.

The online open house was live from April 6th through April 30th and included several options for providing feedback and comments. Options for providing feedback and comments included:

- Interactive Web-Maps: An interactive web-map was developed for each project package. This map included the key projects, near-term, and supporting projects and allowed community members to provide comments or vote on projects from each package.
- Online Survey: This provided an opportunity for community members and stakeholders to identify the package they would prefer to see implemented and to share any additional comments and feedback with the Study Advisory Team.
- Written Comments: Comments were also received from community members and Homeowners Associations (HOAs) in the study area via email.



Key Takeaways

A review of the input received indicated several key themes were considered as the project team developed a preferred package for review by the SAT. Key takeaways include:

- **Desire to fix the US 195/I-90 interchange** – Several community members shared concern that projects being considered as part of this study would only address the issue at the interchange in the short-term.
- **Impacts of an increase in travel on local routes** – The primary routes expected to see an increase in traffic volume that community members voiced concern about was S Lindeke Street north of 16th Avenue and Sunset Boulevard into downtown. Other routes also mentioned were Qualchan Drive and Inland Empire Way. Respondents indicated that traffic calming is necessary to offset the impacts of increased traffic on these routes.
- **Topography and character** – Concerns about the topography of new connections from Qualchan Drive to Meadow Lane Road and Meadow Lane Road to Hatch Road were shared by community members. Another concern raised was the change in character of existing roadways, specifically Marshall Road.
- **Maintaining Fish Lake Trail** - Responses indicate a strong desire to maintain the existing grade separation and character of the Fish Lake Trail.
- **Impacts to local access** – Community members noted concern for the ability to travel easily between Eagle Ridge and other key destinations including Spokane International Airport and the South Hill neighborhood.

For more information on input received during the second community engagement event, see **Appendix A**.

Community Engagement Event #3

In September 2021, community members were asked to provide input on the recommended projects using the study website. This touchpoint with the community allowed them to view the draft study report, executive summary, and list of recommended projects identified through collaboration with the Study Advisory Team and input gathered during the second community engagement event. The study team received 22 comments via the project website and two written responses. Feedback received from the community included:

- Support for the recommended bicycle and pedestrian improvements
- A desire for the Fish Lake Trail to be maintained
- Continued concern for the safety

To see the feedback received during this touchpoint with the community, see **Appendix A**.

Recommended Projects

Following a detailed technical evaluation, collaboration with the Study Advisory Team, and input from the community, 26 projects that best advance the study goals were identified as recommended projects. The 26 projects are grouped by timeline for implementation in the following categories: Near-Term Investments, Key Investments, and Supporting Investments.

The recommended projects are presented on the map and in the table on the following pages and more detail on specific projects is provided below.

The Projects

The 26 recommended projects are shown on **Figure 14** below and listed in **Table 7**. Each project is described in more detail on the following pages.

Near-Term Investments

Projects identified as near-term investments are those that could be implemented within the next five years. These projects address existing safety and operational issues on the corridor and accommodate the growth that has already been zoned and approved in the study area. These projects tend to be smaller in scale and less complex to implement. While these are all candidate projects for near-term investments, it is likely that some of these projects may extend beyond a five-year timeline depending on funding availability and how land use growth occurs.

1. US 195/I-90 Ramp Metering

Retiming the existing ramp meter at the northbound US 195 merge with eastbound I-90 makes merging safer, reduces downstream traffic congestion on I-90, and makes local routes more travel time competitive. It is anticipated that WSDOT will continually monitor and adjust ramp metering on US 195 to maintain safety and regional flows on I-90.

2. Northbound US 195 Travel Time Signs

Installing travel time signs on northbound US 195 south of Hatch Road and/or south of the Cheney-Spokane Road Interchange can alert drivers of alternative routes and travel times to downtown Spokane. With better information about travel times, the signs could encourage drivers to choose local routes when they have a destination within Spokane. This would reduce the number of vehicles using the US 195/I-90 interchange, particularly when the ramp meters are on or there is congestion on I-90.

Figure 14. Recommended Projects

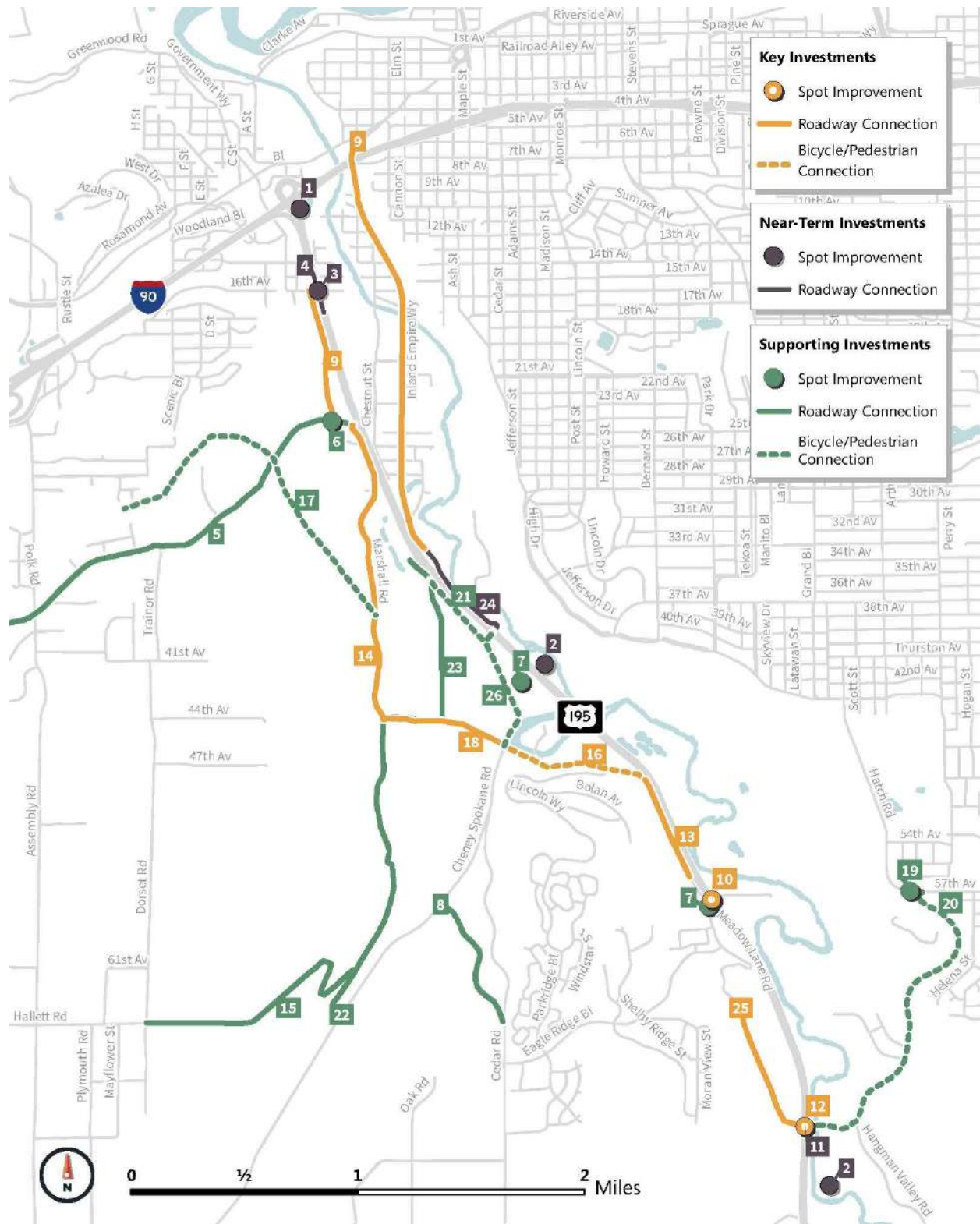




Table 7. Recommended Projects

PROJECT	Near Term	Key Investment	Supporting Investment	Street Connection	Bicycle & Pedestrian	Transit	Safety Improvement	LOS Improvement
	IMPLEMENTATION TIMELINE			PROJECT TYPE				
1. US 195/I-90 Ramp Metering	•						■	■
2. Northbound US 195 Travel Time Signs	•						■	
3. US 195 & 16th Avenue Intersection Modifications	•						■	
4. US 195 Acceleration/Deceleration Lanes at 16th Avenue	•						■	
5. Thorpe Road Improvements			•		■			
6. Thorpe Road Undercrossing Improvement			•		■		■	
7. Spokane Transit Authority Park & Ride			•			■		
8. Cedar Road Realignment			•	■				
9. Lindeke Street & Inland Empire Way Connection		•		■	■	■	■	■
10. US 195 & Meadow Lane Road J-Turns	•	•					■	■
11. US 195 & Hatch Road East Leg Widening	•							■
12. US 195 & Hatch Road J-Turns		•					■	■
13. Qualchan Drive Extension to Meadow Lane Road		•		■	■		■	
14. Marshall Road Improvements (Thorpe Road to 44th Avenue)		•		■	■		■	
15. Hallet Road to Marshall Road Connection			•	■				
16. Qualchan Drive/Cheney-Spokane Road Bicycle & Pedestrian Connection		•			■			
17. Bicycle Connection to the West Plains			•		■			
18. Qualchan Drive Extension to Marshall Road		•		■				
19. Traffic Control at 57th & Hatch Road			•				■	■
20. Hatch Road Multiuse Path			•		■		■	
21. Multiuse Path West of US 195			•		■			
22. Marshall Road Improvements (44th Avenue to Cheney-Spokane Road)			•	■				
23. Connect 44th Avenue to Inland Empire Way			•	■				
24. Inland Empire Way Connection	•			■				
25. Meadow Lane Road to Hatch Road Connection		•		■			■	
26. Right-Sizing Cheney-Spokane Road			•		■		■	



3. US 195 & 16th Avenue Intersection Modifications

This near-term project would reconfigure the west leg of 16th Avenue to allow right-in/right-out turns only while maintaining left-turn access from northbound US 195. With this project in place, drivers would use Lindeke Street to connect to Sunset Boulevard to travel to destinations like downtown Spokane, Airway Heights, or access I-90 at Maple Street. This would reduce the overall number of vehicles using the US 195/I-90 interchange, improving safety and overall traffic operations.

In the long-term, this project would be superseded by the Lindeke Street project, described below, which would close the west leg of the 16th Avenue intersection with US 195 when constructed.

4. US 195 Acceleration/Deceleration Lanes at 16th Avenue

Construct a deceleration lane south of 16th Avenue and acceleration lane north of 16th Avenue to provide space for vehicles using the east leg at 16th Avenue to safely slow down before turning or accelerate before merging with traffic high-speed traffic on northbound US 195. This would improve safety for this leg of 16th Avenue, which is expected to remain open in the long-term.

11. US 195 & Hatch Road East Leg Widening

This near-term improvement would lower delay experienced by vehicles on Hatch Road by providing additional pavement to separate westbound left-turning vehicles from vehicles turning right (north) onto US 195. Because of the limited space between US 195 and the bridge, this improvement would provide additional storage for up to three vehicles but would reduce delays because there are relatively few left-turning vehicles at most times. This would be achieved by minor widening of Hatch Road between US 195 and the Hangman Creek Bridge.

This project would be superseded by the Hatch Road J-Turns, described below, which would eliminate left-turns at the Hatch Road intersection.

24. Inland Empire Way Connection

This project would implement an initial phase of the Inland Empire Way connection by building a new northbound only connection between Cheney-Spokane Road and Inland Empire Way. This connection would partially replace the US 195 and Inland Empire Way connection that was removed in 2014 when the Cheney-Spokane Road Interchange was constructed. As part of this project, the existing northbound on-ramp to US 195 from Cheney-Spokane Road would be shifted to the north and a ramp meter would be installed and operated during the AM and PM peak periods, or whenever there is congestion on eastbound I-90. This project would increase the total capacity for traffic along the Cheney-Spokane Road corridor and be able to support additional zoned growth in the area. By providing an alternate route to Downtown Spokane, traffic growth at the US 195/I-90 interchange will be reduced. Ultimately, this project would be further enhanced by the Lindeke Street and Inland Empire Way Connection described below.



Key Investments

Projects identified as key investments are the more expensive and complex projects that represent the core of the safety and mobility enhancements for the US 195 corridor and establish a parallel roadway network. These projects include roadway extensions, intersection reconfigurations, and bicycle/pedestrian connections that, when constructed, would improve mobility for all modes and address safety concerns on US 195.

9. Lindeke Street & Inland Empire Way Connection

This project would connect Lindeke Street to Thorpe Road west of US 195 and create a two-way connection between Inland Empire Way and Cheney-Spokane Road east of US 195.

Lindeke Street Connection

The new connection on the west side of US 195 would extend Lindeke Street to Thorpe Road by building a new arterial within the WSDOT right-of-way. This arterial would parallel the Fish Lake Trail from 16th Avenue to Thorpe Road. At 16th Avenue, a new bridge would be constructed to replace the existing Fish Lake Trail overcrossing, maintaining the grade separation for the trail. The west leg of the 16th Avenue intersection with US 195 would also be closed as part of this project.

With the new connection, the south J-Turn at Thorpe Road would be closed because traffic from Thorpe Road that is destined to go north would use the new Lindeke Street extension.

Inland Empire Way

On the east side of US 195, a new two-way road would be constructed between Inland Empire Way and Cheney-Spokane Road by relocating the existing northbound US 195 on-ramp further to the north, shifting the US 195 northbound lanes to the west, and shifting the existing multiuse trail to the east. The northbound on-ramp would be metered. The east leg of the Thorpe Road/23rd Avenue intersection would be closed as part of this project and traffic control (e.g., roundabout or traffic signal) would be constructed at the relocated northbound US 195 on-ramp and Inland Empire Way. This project would supplement the initial northbound only phase of the Cheney-Spokane Road to Inland Empire Way connection described in the near-term project list by constructing a two-way connection. Providing a two-way arterial street in this area is critical for building out the local roadway network needed for Spokane Transit Authority to provide service to the area as ridership is higher on routes that serve both directions on a street as opposed to a loop route.

Phasing

The two-way Inland Empire Way connection would be constructed after the Lindeke Extension because the south J-Turn at Thorpe Road must be closed to allow for safe merging from the relocated northbound US 195 on-ramp. Before the south J-Turn can be closed, the Lindeke Extension must be in place so that



drivers using Thorpe Road are able to travel northbound (to Sunset Boulevard) on the west side of US 195.

With the closure of the east leg of the Thorpe Road intersection with US 195, Vinegar Flats residents would access US 195 at the Cheney-Spokane Road Interchange. While different than existing conditions, the spacing between Cheney-Spokane Road and I-90 is about two-miles, which is typical for interchange spacing between an arterial and major freeway.

Ultimate access configuration at US 195 and Thorpe Road could be defined during project development and determined based on travel patterns as project phases are completed.

Traffic calming measures and streetscape improvements, including the addition of sidewalks, lighting, landscape buffers where space is available, and bicycle lanes, would be implemented on Lindeke Street between Thorpe Road and Sunset Boulevard and on Inland Empire Way between Cheney-Spokane Road and Sunset Boulevard. Implementation of these measures would mitigate the impacts of increased traffic volumes on streets surrounded by residential areas, keep vehicle speeds low, and improve connections for bicyclist and pedestrians.

10. US 195 & Meadow Lane Road J-Turns

This project would construct J-Turns at the US 195 intersection with Meadow Lane Road to eliminate left-turns across US 195.

The south J-Turn, constructed as a near-term investment, would eliminate eastbound and southbound left-turns. The south J-Turn was identified as a near-term investment to reduce the number of conflict points for the highest volume left-turn movement, the eastbound left-turn from Meadow Lane Road onto northbound US 195.

The north J-turn would be constructed as a key investment, eliminating the northbound and westbound left-turn while maintaining access to Eagle Ridge from northbound US 195 and access to the residential area and golf course east of US 195.

12. US 195 & Hatch Road J-Turns

This project would construct J-Turns north and south of Hatch Road to eliminate left-turns across US 195. This project would address existing safety and operational deficiencies at the intersection while maintaining access for drivers using Hatch Road to connect from Eagle Ridge to destinations in the South Hill area.

13. Qualchan Drive Extension to Meadow Lane Road

This project would construct a frontage road parallel to US 195 by extending Qualchan Drive to Meadow Lane Road. This project would close the existing access to US 195 from Qualchan Drive and eliminate



access to the south J-Turn from the west leg of the Meadow Lane Road intersection (although the J-turn would remain to provide access from US 195 to the golf course). This project also includes construction of a multiuse path adjacent to the new roadway connection to create a low stress route between the Eagle Ridge neighborhood and the commercial area near the Cheney-Spokane Road Interchange. This multiuse path is complemented by two additional recommended projects: Qualchan Drive/Cheney-Spokane Road Bicycle & Pedestrian Connection and Cheney-Spokane Road Diet.

Once this project is complete, Eagle Ridge residents connecting to northbound US 195 would be required to use Qualchan Drive to connect to Cheney-Spokane Road and use the northbound on-ramp at the Cheney-Spokane Road Interchange or continue on Inland Empire Way. Access to southbound US 195 would be maintained, resulting in no changes to the existing routes to or from Hatch Road and the South Hill from Eagle Ridge.

14. Marshall Road Improvements (Thorpe Road to 44th Avenue)

This project would improve Marshall Road between Thorpe Road and 44th Avenue to meet the design standards for a Collector, as defined by the City of Spokane Design Standards. To meet design standards, Marshall Road would be a paved two-lane road with sidewalks designed to keep vehicle speeds low. This project would also improve the at-grade crossing of the Fish Lake Trail with a crosswalk and warning devices.

16. Qualchan Drive/Cheney-Spokane Road Bicycle & Pedestrian Connection

Improve the bicycle and pedestrian connection between the Eagle Ridge neighborhood and the Yokes retail center along the alignment of Qualchan Drive and Cheney-Spokane Road by constructing an off-street multiuse path.

18. Qualchan Drive Extension to Marshall Road

This project would extend Qualchan Drive west to connect to Marshall Road by constructing a new roadway. This project would include a bridge crossing either over or under the BNSF railroad and would provide a more direct connection to the Fish Lake Trail for bicyclists and pedestrians south of Cheney-Spokane Road (e.g., Eagle Ridge neighborhood). This road would be constructed to City of Spokane Collector standards within the City and County of Spokane standards within the County and would include bike lanes and a sidewalk.

25. Meadow Lane to Hatch Road Connection

This project would connect Meadow Lane Road to US 195 just north of Hatch Road by constructing a new roadway as the area develops. Access to southbound US 195 would be provided via right-in, right-out access to the north of the existing Hatch Road intersection. Access from northbound US 195 or Hatch Road would require use of the proposed J-Turn north of Hatch Road, while the south J-Turn would



provide access to Hatch Road from the west side of US 195 and access to northbound US 195. This new connection would be constructed if there was substantial development between Moran View and US 195 south of Eagle Ridge Boulevard.

Supporting Investments

Projects identified as supporting investments could be implemented at any time and would support a more connected local network for all modes but are not as essential to building out the parallel network and vision for the US 195 corridor. Many of these projects complement future development in the area and require future right of way preservation to ensure a more complete and interconnected multimodal network.

5. Thorpe Road Improvements

Improve Thorpe Road to meet the standards for an Urban Minor Arterial as defined by the City of Spokane's Design Standards between the city limits and US 195 and the County of Spokane's Design Standards between Grove Road and the city limits. Improvements would include the addition of turn lanes, or a two-way-left turn lane as needed for adjacent land uses and the addition of dedicated space for bicyclists and pedestrians.

6. Thorpe Road Undercrossing Improvement

Widen the sidewalk on Thorpe Road from the Canyon Bluff apartments driveway, through the tunnels, and connecting to the Fish Lake Trail. To accommodate wider sidewalks, Thorpe Road would need to be reconfigured to one lane from Canyon Bluff Apartments to Marshall Road and operated with a traffic signal, or the Fish Lake Trail and railroad undercrossing would need to be widened. These improvements would also improve access for large vehicles like buses and trucks and support ongoing efforts by the City of Spokane to connect the property near the existing tunnels to the Fish Lake Trail.

7. Spokane Transit Authority Park & Ride

Through further study, identify a location for a new park & ride in the Latah Valley, operated by Spokane Transit Authority, with connections to downtown Spokane and potentially the West Plains and South Hill. Potential locations for a park & ride include near Yokes Fresh Market at the Cheney-Spokane Road Interchange with US 195 or near the Eagle Ridge Boulevard and Meadow Lane Road intersection. It is important to note, that while the cost of the capital improvements needed to construct a park & ride may be low, the operational costs of operating fixed-route transit service can be substantial. Further study is needed to forecast operational costs and identify the potential for future transit service in the area. Spokane Transit Authority is exploring the use of on-demand transit in lower density areas like the US 195/I-90 Study Area. On-demand transit is similar to ridehailing from companies like Uber and Lyft, except that they tend to operate in a smaller area and connect to major transit hubs. While additional study would be needed a potential on-demand transit service in the Study Area could connect homes and businesses to the proposed park & ride and/or bus services on Sunset Boulevard. This would provide enhanced, area-wide transit access to people who are unable to drive and park at transit. This type of



service is also being discussed by WSDOT as part of commute trip reduction programs in the West Plains. A larger combined service for the West Plains and Latah Valley could help increase the pool of available vehicles and make the service more viable to launch. As the area grows, there will be additional transit demand and further reasons for STA to invest in transit service for the area.

8. Cedar Road Realignment

Construct a new arterial approximately three-quarters of a mile south of the current Cedar Road intersection with Cheney-Spokane Road that would connect Cedar Road and Cheney-Spokane Road with a new roundabout just west of the Spokane-Cheney Memorial Gardens. This new connection would close the existing Cedar Road and Cheney-Spokane Road intersection and much of the alignment up the hill, which has existing geometric deficiencies and is forecast to operate with higher levels of delay than is desired by the City's LOS standard.

15. Hallet Road to Marshall Road Connection

Construct a new roadway connection from the eastern terminus of Hallet Road to the southern terminus of Marshall Road. This new roadway would improve connections in Spokane County and help to build out the local roadway network. This roadway connection would require substantial right-of-way acquisition, navigating a steep grade, crossing the two active BNSF rail lines and the Fish Lake Trail.

17. Bicycle Connection to the West Plains

Create a connection from the Fish Lake Trail to the West Plains by connecting the Fish Lake Trail to the Trolley Trail Conservation Area via the Department of Natural Resources property. The exact alignment, roadway crossing treatments, and how the connection would cross the active BNSF rail line would need to be identified as part of a subsequent study.

19. Traffic Control at 57th Avenue & Hatch Road

Reconfigure the 57th Avenue and Hatch Road intersection and construct traffic control (e.g., roundabout or traffic signal) to improve existing geometric challenges and improve intersection LOS. This project was evaluated in the 2009 Hatch Road Preliminary Design Report and included in the 2019 Transportation Impact Fee Update for the South District.

20. Hatch Road Multiuse Path

Provide a multiuse path parallel to Hatch Road between US 195 and 57th Avenue. This project would separate bicyclists and pedestrians on Hatch Road, a popular route for bicyclists that is narrow, forcing bicyclists into the vehicle lane as Hatch Road winds from the floor of the Latah Valley to the South Hill. This is also the only connection between the upper South Hill and the Latah Valley, so providing a protected option for bicycles and pedestrians is a priority, despite the challenging terrain. This project was



evaluated in 2009 as part of the Preliminary Design Report for Hatch Road, which considered several options for bicyclist and pedestrian improvements between 57th Avenue and Hatch Road.

21. Multiuse Path West of US 195

Provide a multiuse path on the west side of US 195 to connect the proposed Latah Glen development and existing mobile home park to Yokes Fresh Market and surrounding retail. The multiuse trail would cross under the existing railroad bridge creating a grade separated crossing for bicyclists and pedestrians. The multiuse trail would go under the existing railroad bridge in the US 195 right-of-way, then next to the southbound off-ramp to create a grade separated connection to Cheney-Spokane Road and the existing Inland Empire Way pathway.

22. Marshall Road Improvements (44th Avenue to Cheney-Spokane Road)

Improve Marshall Road between 44th Avenue and Cheney Spokane to meet the design standard of a Collector as defined by Spokane County Road standards. To meet road standards, Marshall Road would be a paved two-lane road with shoulders. Sidewalks will be required as adjacent land develops in the future. This section of Marshall Road includes an old railroad bridge, which provides a grade separated crossing for the Fish Lake Trail.

23. Connect 44th Avenue to Inland Empire Way

Connect Marshall Road to Inland Empire Way on the west side of US 195 by constructing a new roadway on the alignment of 44th Avenue and then running north on the west side of the railroad to reach Inland Empire Way. This connection would provide an important second access point to the Department of Natural Resources land, an area with development potential. It would also provide a second access point for the existing manufactured home parks west of US 195.

26. Right-Sizing Cheney-Spokane Road

Specific details would need to be defined as part of a future study but could include reducing the number of vehicle lanes (to one in each direction) with a two-way-left-turn lane along Cheney-Spokane Road between US 195 and the Yokes Fresh Market shopping center; build a new trail that parallels US 195 between the shopping center and the new Qualchan Drive extension (east of the Sunny Creek development), or a new trail parallel to Cheney-Spokane Road and Qualchan Drive. Near Yokes Retail Center, Cheney-Spokane Road is 64 feet wide which is adequate space to provide bicycle lanes, stormwater treatment swales or transit stops in the area.

Recommended Project Improvements

The key investment projects were evaluated to understand the operational and safety benefits to the transportation system. This chapter presents the findings of that analysis as it relates to each of the study goals.



Goal #1: Improve Existing and Future Safety Conditions

With construction of the eight core projects identified as key investments, travelers would have two parallel routes to US 195 that could be utilized for trips to/from the study area to commercial and employment areas.

The two new routes would create a connected parallel network from Hatch Road to Sunset Boulevard on the west side of US 195 and from Cheney-Spokane Road to Sunset Boulevard on the east side of US 195.

With the construction of parallel routes and limiting access to the US 195 corridor, the volume using the US 195/I-90 interchange would be reduced during AM and PM peak travel hours. During the AM peak hour, traffic volumes using the northbound merge with I-90 would be reduced by nearly 20%. During the PM peak hour, when congestion is highest on eastbound I-90, volume using northbound US 195 would be reduced by nearly 30%.

In addition to shifting local volume to lower-speed routes, construction of the key investments would also be paired with removing access to US 195 throughout the study area thereby reducing the number of potential conflict points with other vehicles for travelers using US 195. Construction of all key investments would remove access to US 195 at the following locations:

- Closing the west leg at W 16th Avenue
- Full closure of the Thorpe Road intersection (*This would be determined during project design and phasing.*)
- Full closure of the Qualchan Drive intersection
- Prohibiting access (left-turn) to northbound US 195 at Meadow Lane Road from the west side of US 195

Table 8 presents a comparison of the number of conflict points along the US 195 corridor under baseline conditions and the number of conflicts points with the eight key investments constructed. As shown, the key investments would reduce the total number of conflicts points by 20 (from 38 to 18) and only one intersection, the US 195/Hatch Road intersection, would have an increased number of conflict points. At Hatch Road/US 195 the number of conflict points would increase by two due to the addition of the right-

in/right-out only access from the new arterial connection on the west side of US 195 that would be provided between the two J-turns.

Table 8. US 195 Conflict Points Summary

Intersection	Number of Conflicts								
	Baseline				Key Investments				Change
	Crossing	Left-Turn	Merge/ Diverge	Total	Crossing	Left-Turn	Merge/ Diverge	Total	
W 16 th Avenue	8	4	0	12	2	2	0	4	-8
W Thorpe Road	0	0	4	4	0	0	0	0	-4
Cheney-Spokane Road	0	0	4	4	0	0	4	4	0
Qualchan Drive	0	0	2	2	0	0	0	0	-2
E Meadow Lane Road	8	4	0	12	0	0	4	4	-8
S Hatch Road	2	2	0	4	0	0	6	6	2 ¹

¹Increase is due to the addition of right-in/right-out only access between the Hatch Road J-Turns to connect the proposed arterial between Meadow Lane Road and Hatch Road to US 195.



Goal #2: Maintain Mobility for Local and Regional Trips Including Freight/Goods Movement

Regional Trips

The primary measure to understand the benefit to local and regional trips, including freight/goods movement is operations on the regional facilities. As discussed above, by providing local travelers with parallel routes, capacity on regional facilities is preserved for the movement of freight and goods. As shown in **Table 9**, this would result in a slight decrease in density at the US 195 northbound merge with I-90 eastbound.



Table 9. US 195/I-90 Merge Level of Service with Key Investments

Location	Facility Type	AM Peak Hour			PM Peak Hour		
		Density (pc/mi/ln)		LOS	Density (pc/mi/ln)		LOS
		Freeway	Ramp		Freeway	Ramp	
US 195 Off-Ramp	Diverge	29	31	D	41	40	F
Mainline between US 195 Ramps	Basic	24	-	C	36	-	E
US 195 On-Ramp	Merge	38	36	E	36	38	F
US 195 Off Ramp to S Maple Street/ S Walnut Street	Diverge	38	24	C	38	28	F

Bold font indicates unacceptable operations.

It is important to note that while construction of the key investments would substantially reduce volume using the US 195/I-90 interchange and improve operations at the merge, the primary contributor to poor operations at the US 195 northbound merge with I-90 eastbound is congestion on I-90, which is largely unaffected by changes to the local network within the US 195 study area.

Local Trips

A primary benefit to mobility for local travelers, particularly those whose trips originate and end in Eagle Ridge or Vinegar flats, is the addition of new routes that no longer require the use of the US 195 to travel between employment and retail centers. As shown on **Figure 15** through **Figure 17** for trips traveling from these two residential areas into downtown or the Yokes retail center within the study area, the new connections to the east and west of US 195 would allow for travelers to make these trips without using US 195. Only trips to and from Spokane International Airport or destinations to the west would continue to use US 195. The new connections also make transit service in the study area more feasible, creating another option for local travelers.

Figure 15. New Routes To/From Eagle Ridge

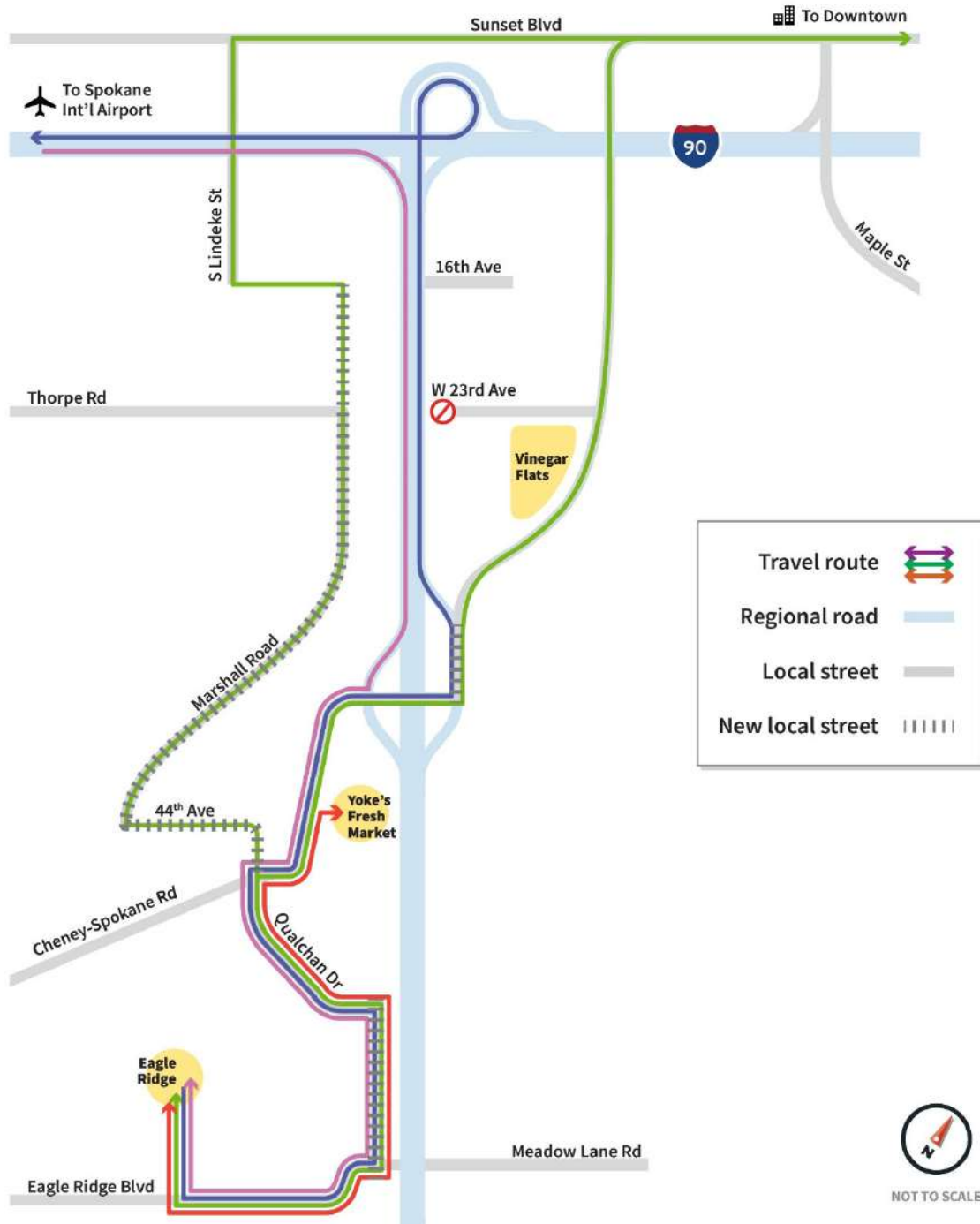


Figure 16. New Routes from Vinegar Flats to Yoke's Fresh Market

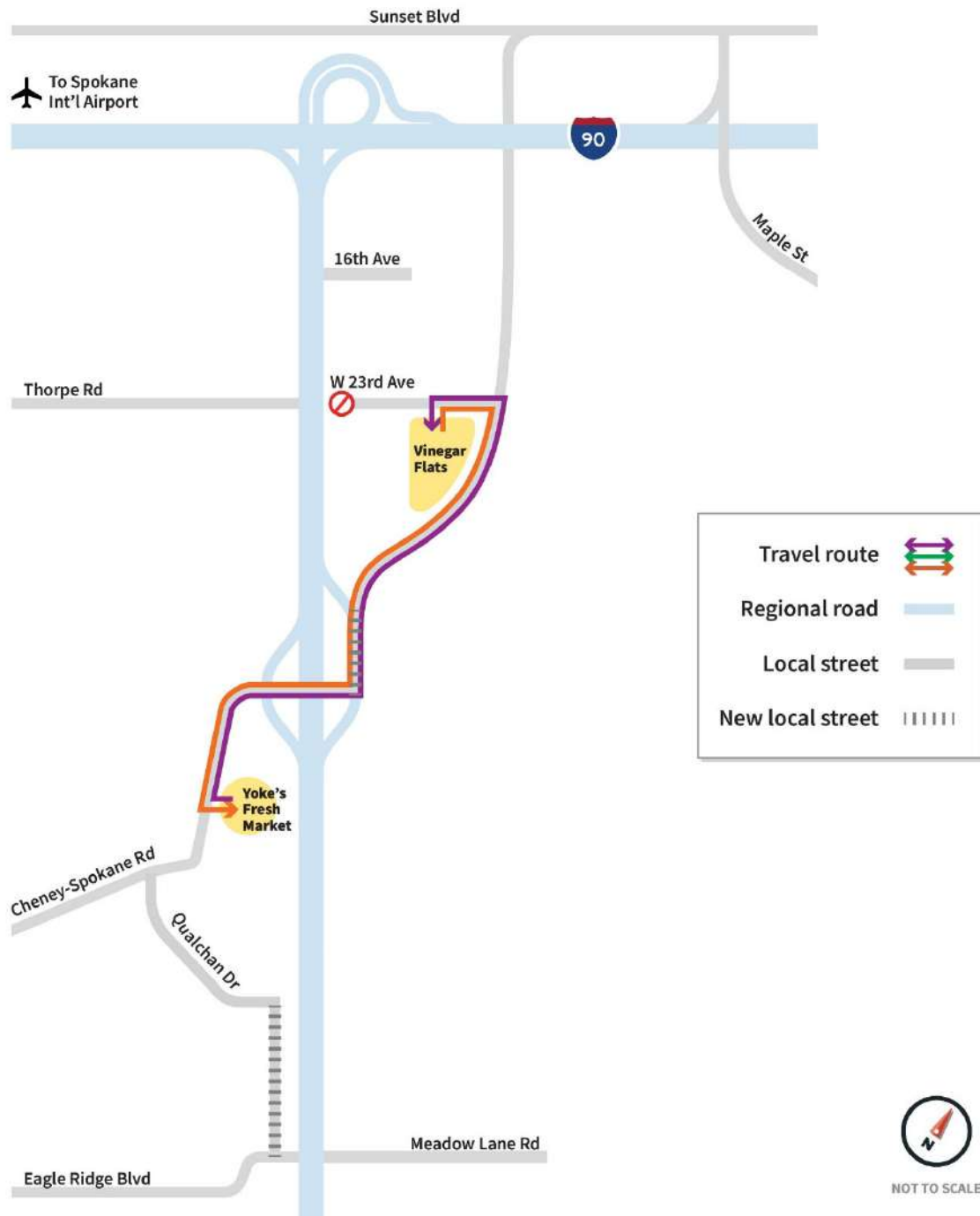
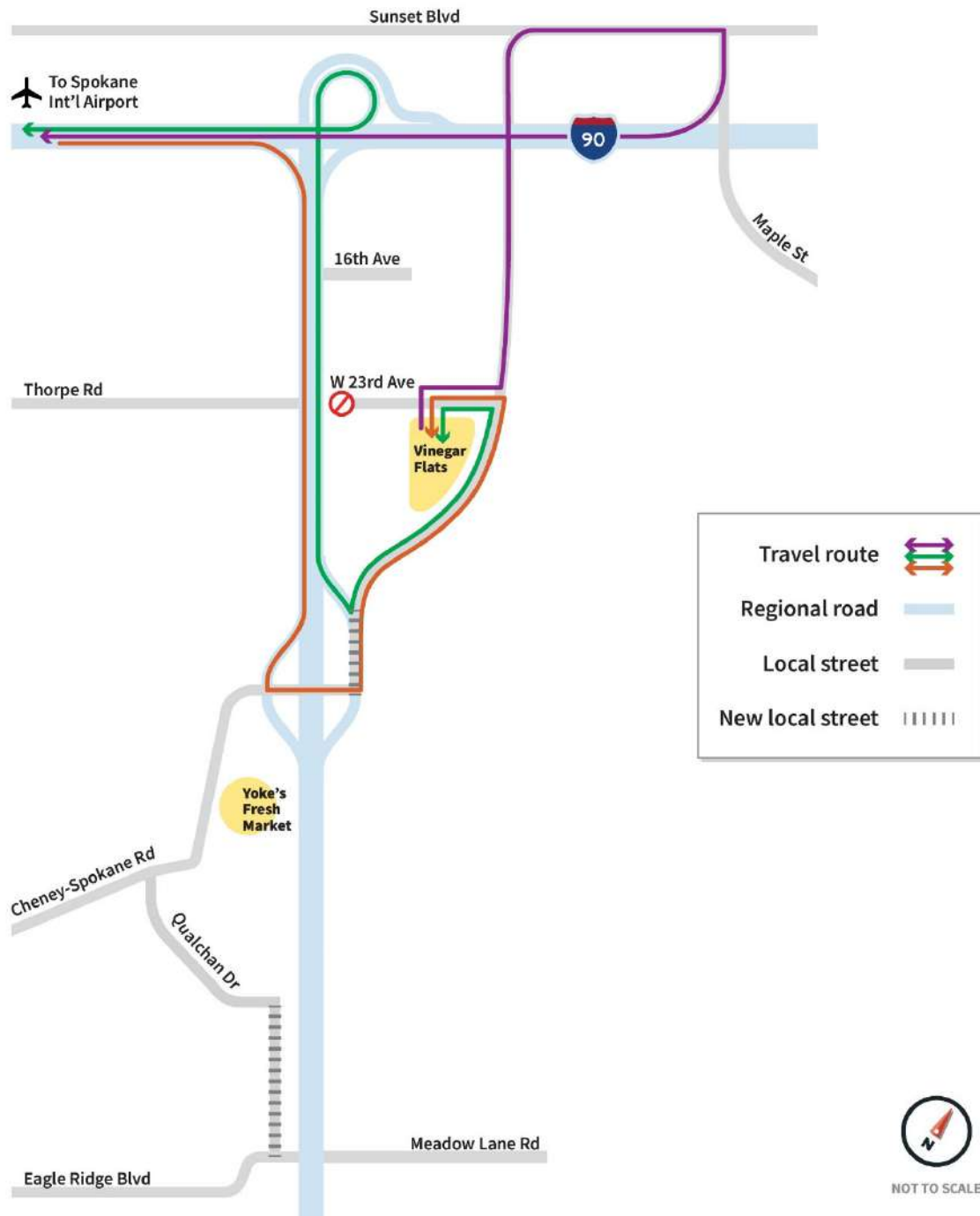


Figure 17. New Travel Routes from Vinegar Flats to Spokane International Airport





Goal #3: Accommodate the Transportation Needs of Planned Development

As residential development continues to occur on land that has already been zoned and approved for additional development, the identification of near-term projects that could be implemented within five years or less was a primary focus of this study. As shown in the previous chapter, the list of recommend projects includes seven projects that could be implemented in the near-term. Those projects include:

- Retiming the US 195/I-90 ramp meter to make local routes more time-competitive and reducing conflicts at the US 195/I-90 interchange
- Installing travel time signs on northbound US 195 to alert drivers of alternative routes and travel times to downtown
- Reconfiguring the US 195/16th Avenue intersection to right-in/right-out access on the west leg while maintaining access for northbound left-turns
- Providing acceleration/deceleration lanes for vehicles turning to/from the east leg at 16th Avenue
- Providing additional storage to separate westbound left-turning vehicles from right turning vehicles at Hatch Road
- Northbound Inland Empire Way connection from Cheney-Spokane Road

The list of recommended projects would also support long-term growth in the area by providing improved connections to potential development areas, specifically west of US 195 and improving LOS at study intersections in 2040. As discussed in the Future Conditions chapter, with no improvements, all intersections along US 195 would operate at LOS E or LOS F by 2040, along with several local intersections. With the full list of recommended projects in place, only three intersections would operate below the LOS standards in 2040:

- US 195/Meadow Lane Road during the PM peak hour
- Hatch Road/43rd Avenue during the AM and PM peak hour
- High Drive/Grand Boulevard

The high delay at the Meadow Lane Road intersection during the PM peak hour would be experienced by drivers using the north J-Turn to access southbound US 195, including those trips connecting to the new roadway between Hatch Road and Meadow Lane Road, as those vehicles must wait for gaps in the peak direction. The poor operations at the Hatch Road and High Drive intersections are forecast to occur under baseline conditions and are not made worse with the recommended projects in place.



Goal #4: Increase Modal Options such as Walking, Biking, and Transit

While the projects identified as key investments do not include any projects that are specifically oriented towards bicycle, pedestrian, and transit users, the new connections

would provide lower speed facilities with dedicated space for bicyclists and pedestrians and build out the local network, which is needed to create more efficient transit service. The new connections would also better connect residential areas like Eagle Ridge to the existing Fish Lake Trail. It is also important to note, that the Fish Lake Trail would be maintained as a grade-separated facility with all recommended projects in place.

The list of recommended projects also includes several projects, identified as Supporting Projects, that would provide new connections for bicyclists and pedestrians. These projects include a multiuse path on the west side of US 195 connecting from existing and planned development to the Yokes retail area, the addition of a multiuse path on Hatch Road between US 195 and 57th Avenue, and a road diet on Cheney-Spokane Road to provide improved connections for bicyclists and pedestrians traveling from Eagle Ridge to the Yokes retail area or existing multiuse path east of US 195.



Goal #5: Identify Projects That Are Practical, Implementable, and Fundable in a Reasonable Timeline

Planning-level layouts and cost estimates were prepared for the eight key investments to understand feasibility of construction and cost associated with each the projects. The total cost of the key investments is presented in **Table 10**. While the total cost of these projects is estimated to exceed \$90 million, this set of projects is substantially less costly than the previous vision for the US 195 corridor, which consisted of new interchanges at the primary intersections along the corridor. Detailed cost estimates are provided in **Appendix B**.

Table 10. Key Investment Cost Summary

Key Project	Project Cost (\$M) ¹
Inland Empire Way Connection	\$9.2M
J-Turns at Meadow Lane Road	\$1.6M
Qualchan to Meadow Lane Extension	\$21.7M
Marshall Road Improvements (Thorpe Road to 44 th Avenue)	\$10.1M
Lindeke Extension to Thorpe Road	\$9.3M
J-Turns at Hatch Road	\$1.6M
Qualchan Connection to Marshall Road	\$16.7M
Qualchan Drive/Cheney-Spokane Road Bicycle & Pedestrian Connection	\$0.9M
Meadow Lane to Hatch Road Connection	\$20.2M
Total	\$91.3M

¹Costs are based on planning level estimates and 2021 dollars.

Additional Scenarios Evaluated

Over the course of this study, two additional scenarios were evaluated to understand the changes to the transportation system that would occur under each scenario. The first scenario, the Rosamond Bridge scenario, evaluated how the long-term closure of the Rosamond Bridge would affect travel patterns in the study area. The second, the 2040 land use developed by SRTC, which forecasts higher growth in the study area, was used to determine if any of the recommended improvements would fail to meet the project goals if growth occurs faster than what is anticipated by the market analysis.

A high-level summary of the findings for each scenario is presented below.

Rosamond Bridge

In Spring of 2021, the Rosamond Bridge was closed due to the poor condition of the bridge deck. At the time of the technical analysis, it was unknown when the bridge would be reopened. To understand the changes to traffic volumes and travel patterns within the study area, a high-level analysis was completed.

This analysis used the regional travel demand model, with the connection across the Rosamond Bridge removed. While approximately 300 peak hour trips would be expected to use the bridge in 2040, the closure does not result in any substantial change in traffic volumes or travel patterns within the area. The primary roadways that experience an increase in traffic volume are Lindeke Street south of Sunset Boulevard and Thorpe Road to the west of the study area.

The changes in traffic volume due to the bridge closure were not found to degrade any intersections operating below the LOS standards or require changes to any of the recommended projects.

More detailed forecasts for this scenario can be found in **Appendix C**.

SRTC 2040 Land Use

Technical analysis was also completed using land use information that forecasts higher growth than was identified as likely to occur within the next 20 years based on the market analysis completed for this project. This analysis was used to confirm that the list of recommended projects would continue to provide operational benefit to the study area if growth occurred faster than anticipated.

This analysis used land use information developed for the 2040 SRTC model, which forecasts higher residential and employment growth in the study area as shown in **Table 11**.

Table 11. SRTC 2040 Land Use Comparison

Units	Dwelling Units		Employment					
	Single family	Multi family	Retail	FIRES*	Hotel	Industry	Medical	Office
Market Analysis	2,548	1,418	432	271	493	100	164	423
SRTC Land Use ¹	2,839	2052	751	202	668	666	924	850
Difference (SRTC- Market Analysis)	291	634	319	-69	175	566	760	427

¹ SRTC Land Use denotes growth from 2015 to 2040 for all Traffic Analysis Zones in the study area.

This scenario would result in a 7% increase in traffic volumes in the study area during the AM peak hour and a 6% increase in traffic volume during the PM peak hour. However, this increase in volume would not cause any facilities to exceed capacity, degrade any intersections below the LOS standard or require modifications to any of the recommended projects.

More detailed forecasts for this scenario can be found in **Appendix C**.

Appendix A: Community Engagement

Memorandum

Date: May 7, 2022
To: Ryan Stewart – Spokane Regional Transportation Council
From: Kara Hall & Chris Breiland, PE – Fehr & Peers
Subject: **DRAFT Community Engagement Event #2 Summary**

SE19-0695

Introduction

This memorandum summarizes the virtual community engagement event for the US 195/I-90 Transportation Study held in April 2021.

This was the second opportunity for community members and stakeholders to share input and provide feedback on the US 195/I-90 Transportation Study.

The first opportunity, held in February 2020 included an in-person community meeting paired with an online survey and interactive web-map where community members could identify missing facilities and areas of concern. Input gathered during this event informed the project goals and development of potential projects to address concerns shared by community members and stakeholders.

Due to local health guidelines resulting from the ongoing COVID-19 pandemic, the second community engagement event was hosted entirely on the project website and featured an online open house. By visiting the project website, community members could view the two packages of projects, a comparison of how the two packages advance the project goals and share comments and feedback on individual projects and the two packages.

Engagement Opportunities

The online open house was live from April 6th through April 30th and included several options for providing feedback and comments. Options for providing feedback and comments included:



- **Interactive Web-Maps:** An interactive web-map was developed for each project package. This map included the key projects, near-term, and supporting projects and allowed community members to provide comments or vote on projects from each package.
- **Online Survey:** This provided an opportunity for community members and stakeholders to identify the package they would prefer to see implemented and to share any additional comments and feedback with the Study Advisory Team.
- **Written Comments:** Several comments were also received from community members and Homeowners Associations (HOAs) in the study area via email.

Responses received through each of the online platforms are summarized below.

Survey Responses

There were 76 community members that completed the online survey. Of the 76 respondents, 32 respondents (42%) live in Latah/Hangman Valley. Eight responses were received from community members that live in Grandview/Thorpe and seven live in Unincorporated Spokane County. Other responses identified the West Hills, Browne's Addition, Cliff-Cannon, Cheney and Other as where they live.

When asked which package of projects they prefer, 42 respondents (67%) identified Package 2 – Enhanced Parallel Network, while the other 20 responses selected Package #1 – Enhanced Expressway.

All 61 comments received are included as **Attachment A** to this memorandum.

Interactive Web-Maps

Community members could view and comment on individual projects in each of the packages using the interactive maps on the project website. Input received on each of the packages is summarized below.

Package #1 – Enhanced Expressway

- Four upvotes
- Three comments

Package #2 – Enhanced Parallel Network

- Four upvotes
- Seven comments

Comments received on the interactive web-maps are documented in **Table 1**.

Table 1. Community Input Summary

Project	Comment Received
Package #1 – Enhanced Expressway	
Lindeke Street Extension	<p>As a trail advocate, my primary concern with this aspect of the project is that it have as little impact on the Fish Lake Trail as possible.</p> <p>Diverting 195 traffic to Lindeke will increase traffic on the Sunset Hill bridge, which is already structurally inadequate for current and future needs.</p>
US 195/I-90 Ramp Metering	<p>I still think that making the far-right lane of I-90 coming down the hill into an exit only to southbound 195 and closing it beyond that would solve the problem of the 195 to I-90 merge lane and obviate the need for a meter.</p> <p>Close the far right lane on I-90 to exit only onto 195 so traffic coming from 195 doesn't have to merge so quickly.</p>
US 195 Frontage Road between Qualchan Drive & Meadow Lane Road	<p>Is a frontage road even possible? Possibly by sliding the southbound lanes east, you could create enough room; the hillside is so steep there's no cutting into it to make more room on the west.... Why limit access at Qualchan anyway? It would be far less expensive to create an entry lane to build up speed heading south, and the exit off southbound 195 to Qualchan is a huge boon to those of us who live up the hill...a longer exit lane might help traffic flow, but please don't cut Qualchan off entirely!</p>
Package #2 – Enhanced Parallel Network	
US 195/I-90 Ramp Metering	<p>The ramp at Northbound US 195/Eastbound I-90 is the most important obstacle to improving safety in the corridor. A better long-term solution is to re-do the ramp. More expensive, but better in the long run.</p> <p>This comment is not for this particular component, but is more for the entire project: All of the proposed changes/modifications in each of the 2 packages seem overly complicated and cobbled-together in an effort to avoid a larger investment in long-term solutions. This is a four-lane, divided state highway in what has become an area of extensive population and traffic growth. It needs solutions that meet that status. The area needed these improvements many years ago. Please do not 'punt' improvements down the road. Fix it now the right way, so that the roads can meet the current and projected growth. I understand overpasses, ramps, etc. are expensive, but what is being proposed feels like a band-aid where a more extensive and thorough fix is needed.</p>
Marshall Road Improvements from Thorpe Road to 44th Avenue	<p>Looks like turning Marshall Rd into an arterial and alternate route to 195 could devastate homeowners like myself on Marshall Rd. I bought this place 16 years ago for the peace and quiet of rural life. It's all I have and all my money invested in it and the property. I just completely remodeled and now that equity (my only retirement) could be gone in the blink of an eye. My house would literally be sitting on top of the arterial. More traffic, more access, more noise, more crime, more people disturbing this quiet peaceful off the beaten path road of homes. We do not have city sewer down this road. Would this be a cost imposed on me? I have zero ability to absorb any costs so close to retirement age. Am I interpreting this accurately?</p>
Lindeke Street Extension	<p>Please keep the integrity of the Fish Lake Trail intact.</p>

Table 1. Community Input Summary

Project	Comment Received
US 195 Frontage Road between Qualchan Drive & Meadow Lane Road	<p>There is a steep hill immediately to the West of existing hwy 195. Will a frontage road fit? Has topography been considered?</p> <p>I agree! There is a less expensive alternative--keep the connection between Qualchan and the highway with exit and entrance lanes extended to help with traffic flow. A frontage road won't fit!</p>
US 195 & Meadow Lane Intersection Modifications	<p>Remove at-grade intersections. J-Turns are not a viable long-term solution. On/off ramps are a more permanent solution to provide safe access/exit to/from hwy 195.</p> <p>I am thrilled that this is finally going to be completed. Traffic seems to be increasing on a daily basis. Crossing 195 at Meadowlane can be nerve racking and dangerous at many times of the day. Please, please, please get this built. At a minimum, a round about or half j turn needs completed asap.</p>
New Arterial Between Meadow Lane Road and Hatch Road	<p>There is a steep rock cliff on West side of hwy 195 where it intersects with Hatch road. Can an arterial road ben constructed in this location? Has topography been considered?</p>
Qualchan Drive Extension to Marshall Road	<p>It is difficult to understand how this connection will work at Qualchan. There will be a "bridge" under the railroad? Quite baffling.</p>
Yokes Park & Ride	<p>I like the idea of using mass transit to help with the traffic situation. The more park and rides there are the better for many reasons besides lowering traffic volume.</p>
US 195 & 16th Avenue Intersection Modifications	<p>This comment is not for this particular component but is more for the entire project: All of the proposed changes/modifications in each of the 2 packages seem overly complicated and cobbled-together in an effort to avoid a larger investment in long-term solutions. This is a four-lane, divided state highway in what has become an area of extensive population and traffic growth. It needs solutions that meet that status. The area needed these improvements many years ago. Please do not 'punt' improvements down the road. Fix it now the right way, so that the roads can meet the current and projected growth. I understand overpasses, ramps, etc. are expensive, but what is being proposed feels like a band-aid where a more extensive and thorough fix is needed.</p>
Meadow Lane Park & Ride	<p>Outstanding. Additional transit options are always a great addition to any city. Although, this would add car traffic to the area. Would the j turn be in place before it's considered?</p>

Written Responses

Six responses were received via email and letters submitted directly to the Spokane Regional Transportation Council (SRTC). Input was received from individual community members and from individuals representing HOAs within the project study area.

The written responses received are included as **Attachment B** to this memorandum.

Key Takeaways

A review of the input received as of April 20th, 2021 indicates several key themes that emerged from the input received that should be considered as the project team develops a preferred package for review by the SAT. Key takeaways include:

- **Desire to fix the US 195/I-90 interchange** – Several community members shared concern that projects being considered as part of this study would only address the issue at the interchange in the short-term.
- **Impacts of an increase in travel on local routes** – The primary routes expected to see an increase in traffic volume that community members voiced concern about was S Lindeke Street north of 16th Avenue and Sunset Boulevard into downtown. Other routes also mentioned were Qualchan Drive and Inland Empire Way.
- **Topography and character** – Concerns about the topography of new connections from Qualchan Drive to Meadow Lane Road and Meadow Lane Road to Hatch Road were shared by community members. Another concern raised was the change in character of existing roadways, specifically Marshall Road.
- **Maintaining Fish Lake Trail** - Responses indicate a strong desire to maintain the existing grade separation and character of the Fish Lake Trail.
- **Impacts to local access** – Community members noted concern for the ability to travel easily between Eagle Ridge and other key destinations including Spokane International Airport and the South Hill.

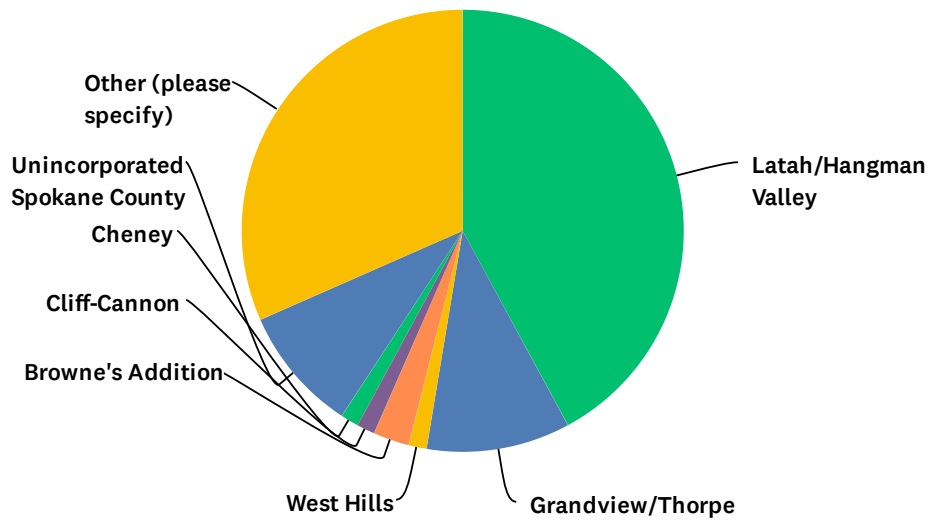
Next Steps

Based on input received from the community, the project team has identified updates to proposed projects that would address concerns raised by community members. The proposed updates will be presented to the SAT for review and consideration.

Following review of the community input by the SAT, a set of recommended projects will be selected for a final round of technical analysis. The final round of technical analysis and project documentation will then be presented to the SAT for review.

Q1 Please tell us where you live.

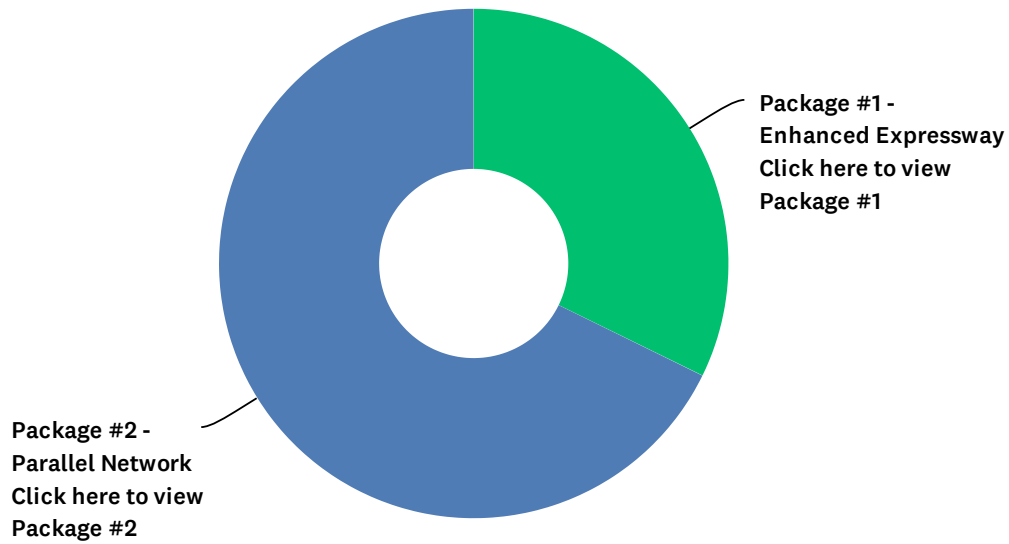
Answered: 76 Skipped: 0



ANSWER CHOICES	RESPONSES	
Latah/Hangman Valley	42.11%	32
Grandview/Thorpe	10.53%	8
West Hills	1.32%	1
Peaceful Valley	0.00%	0
Browne's Addition	2.63%	2
Cliff-Cannon	1.32%	1
Manito/Cannon Hill	0.00%	0
Comstock	0.00%	0
Airway Heights	0.00%	0
Medical Lake	0.00%	0
Cheney	1.32%	1
Unincorporated Spokane County	9.21%	7
Other (please specify)	31.58%	24
TOTAL		76

Q2 After reviewing all the materials in this open house, which package do you prefer?

Answered: 62 Skipped: 14



ANSWER CHOICES	RESPONSES	
Package #1 - Enhanced Expressway Click here to view Package #1	32.26%	20
Package #2 - Parallel Network Click here to view Package #2	67.74%	42
TOTAL		62

Q3 Please share any additional comments you have on the study.

Answered: 61 Skipped: 15

#	RESPONSES	DATE
1	<p>I've driven this route for 11 years. The overpass at Cheney-Spokane Rd was a godsend! Hatch, Meadowland and 16th are the most dangerous of these intersections. Overpasses or underpasses at all three of these would be ideal. I would also encourage a second route onto the South Hill from Hwy 195. Possibly a connection from Cheney-Spokane Rd to 29th Ave on the South Hill. As more homes get built in this corridor, having a second way to get up on the hill will become more necessary. Also, the metered ramp for eastbound access to I-90 would not have been my first choice of solution. I work in Airway Heights. So I use east bound I-90 to connect to South Hwy 195 everyday on my way home. A few years ago, there was a construction project that turned the right lane of east bound I-90 into an exit only lane for Hwy 195. They kept that lane closed until Hwy 195 south merged onto I-90 eastbound. So the merging traffic from Hwy 195 did not have to yield to I-90 traffic. At the time, it did not seem to slow down I-90 traffic at all. And was much safer for the traffic merging from Hwy 195. I know it is not normal, best practice to have freeway traffic yield to merging highway traffic. But in this case, asking the I-90 traffic to yield to the oncoming Hwy 195 traffic would be much safer, than asking Hwy 195 traffic to yield to I-90 traffic as the current signage requires. Also, warning signs with flashing lights on I-90 eastbound, alerting drivers to Hwy 195 merging traffic would be helpful. Thank you for listening. I know all these projects require lots of funding and will take time. Saving lives is what is most important! I appreciate all the ideas and improvements that are planned.</p>	5/4/2021 11:37 AM
2	<p>With the current Federal government proposal to improve America's roads and transportation, I think it would be the perfect time to bit the bullet and propose the best solution which is to fix the problem at the I-90-195 intersection. Both the proposed projects are temporary fixes that will increase local traffic and traffic congestion for the Inland Empire Highway residents, and the other residential areas. In addition, I use I-195 to go to Spokane Valley or to North Spokane and would seldom use the Inland Empire Highway options as I seldom head down town. Without a permanent solution to the I-90-195 merge, I feel like I am putting my life in danger every time I drive that route. The J-turns are not good solutions for the increased traffic that will come with the building of more houses along the I-195 corridor. The projections are in the hundreds of new houses with no increase in mass transportation, and no increase in highway capacity. I personally encounter problems at the Thorpe Road J turn on a regular basis due to traffic increases. If I had to choose a proposed package, I would choose Package #2, but I consider it the least of two bad options. Fix the problem for the future! Thank you for your consideration. Barbara Byram</p>	5/3/2021 6:32 PM
3	<p>Reroute the 195 merge so that it enters I 90 about halfway up the I 90 west bound hill.</p>	5/2/2021 5:06 PM
4	<p>I'm shocked to hear the plan it to change the timing on the lights at 195 to I90 to cause more congestion and force traffic to other routes. You want to make a new route to send more traffic to Sunset Blvd. this bridge is already narrowed to one lane each direction on the bridge. At one time, I heard the sunset bridge was in need of repair. Now you're plan is to direct more traffic to this aging bridge. Somebody's will have to put money into this bridge it will be your next problem if you do this. The city allows developers to make big profits without holding developer's accountable/ responsible for the transportation mess they leave behind. Eagle Ridge should never of been developed the way that it was. This should change! Please make developers responsible for this mess. Also, concerned about access to emergency services. If there was another fire storm where would we go? How could we get out? Think about level loading the traffic by encouraging employers to have people in this area work from home. Provide better Internet access. So this can happen. Think about early or later shift start times. Give credit (possible tax credits) for cars using the merge at non-peak times. Encourage business used by people who live in this are to open earlier and stay open later. Encourage Amazon to have the majority of its employees work nonpreferred shifts to reduce traffic on I90. Consider shutting down one lane on I90 and make it dedicated offramp to 195/on ramp to I90. This would cause congestion on I90 up at the top of the hill and perhaps get some of those folks to take different routes or request different shifts to help avoid the traffic jam. Encourage</p>	5/2/2021 3:44 PM

tax credits to people who work in the airy Heights area to live in airway Heights area. This would reduce traffic. This is not just the responsibility of the folks who live in the 195 area.

5	As a frequent driver, main choke points are the I90 junction and Hatch junction. Both are addressed poorly in these two packages. On ramp to I90 needs its own lane. Hatch needs to be completely revamped to accommodate the projected growth. Two lanes each way with overpass. Multi use trails are a must.	4/30/2021 11:35 PM
6	This is the better of the two as it creates a westbound traffic flow to separate from traffic going downtown. What I don't like is by feeding traffic through an "improved" Inland Empire and bypassing 195 to I-90 will only gridlock getting into town and on 3rd Ave. This is true with either package. I pity the poor neighborhoods that will have to deal with all this excess traffic and noise. Years of construction, followed by excessive traffic!! Also very concerned with the threats of wildfires in our communities and our ability to evacuate. If all these developments in the Eagle Ridge area and 195 are allowed, how do we safely evacuate when the unthinkable happens?	4/30/2021 9:01 PM
7	The 16th Avenue and Thorpe crossings seem most unsafe at present. The Inland Empire Way Connection and South Lindeke Street Extension seem crucial for long-term neighborhood development and access to food, transit, and services. Multi-use trail along Hatch also is important to increase public trail access. Park and Ride is also exciting improvement! Thank you!	4/30/2021 8:51 PM
8	My Name is Mitchell Smith, at this writing I was just involved in a serious accident at the juncture of I-90 and 195. The four car pile up made me realize that both options fail to address the main problem with transportation and it is that no matter what you do the transportation problem will not be resolved in the slightest by package one or package two unless there is planning the addresses I-90 and 195. Obviously, there is a inadequate range of alternatives unless at least one alternative or package as you call it fixes the bottle neck at this dangerous intersection - we were very lucky no one was killed in the accident I was involved in. Additionally the proposals appear to make driving on 195 more dangerous with cars entering and exiting from all directions - at least one Package should have turned 195 into a limited access freeway with frontage roads on either side. Lastly there should have been an alternative that limits development until a safe transportation system with capacity to handle all future traffic is completed. This plan appears to exist to help developers and not those who need a safe and reliable transportation system. Thank you for addressing my concerns, Mitchell Smith - patience5907@hotmail.com	4/30/2021 5:29 PM
9	I prefer package #1 over package #2, but I do not like either option. It would be better to focus on acquiring funding to actually fix the 195 to I-90 interchange and expand the bridge over Latah Creek. I would also like traffic lights to be considered instead of additional J-turns or roundabouts along 195. The condition of the side roads to downtown Spokane are already poor, and it does not seem like they would be able to handle much increase in traffic.	4/30/2021 2:15 PM
10	What is most important for my wife and me is enhancing the safety of the intersection at Hatch and 195. The J-turns will be a great improvement but we would eventually like to see a full interchange like what is now at Cheney Spokane Road and 195. We drive 195 into Spokane several times a week. This is personal for us as my wife experienced a severe accident on 195 in 2002.	4/30/2021 1:18 PM
11	I appreciate the efforts to make improvements, however, the increased traffic at the merged point of Cedar Road to Cheney Spokane Road and Qualchan would be a disaster unless this road was widened and stop signs required in each direction. Currently, it is so congested with traffic coming down Cedar, it is difficult to make either a right or left turn off of Qualchan. The speeds are uncontrolled and in the winter months, car cannot stop due to ice, so even a stop sign would not help under these conditions.	4/30/2021 12:42 PM
12	I like the idea of arterials along 195. I'd prefer an overpass for hatch road rather than J turns. The video made it sound like access to i90 westbound would be cutoff from 195. I use that everyday to travel to work in Airway Heights. The westbound i90 entrance from 195 doesn't seem to be a problem, so hoping that I am misunderstanding that. The PDF doesn't explicitly state that that entrance will be closed. Finally, the long term plan to reroute cedar to the other side of the cemetery adds multiple miles to a trip into Spokane. I live on the upper part of Eagle Ridge, and myself and most others around me use Cedar to go to and from the city and home. With rerouting Cedar, I know that I will start to go down Parkridge / Lincoln and connect to Qualchan to access the overpass and expect many others will as well. There is a large Whispering Pines park that would be passed in doing so. Not sure if the plan contemplates the	4/30/2021 10:04 AM

increased traffic at Lincoln / Qualchan from those currently using Cedar if and when Cedar is rerouted. Overall this is a great improvement. It doesn't completely solve the bottlenecks that access downtown will continue to have, but it's a great start. Please make sure these projects are complete before permitting additional development in the area. Please consider not rerouting Cedar at all. Maybe a roundabout at the existing Cedar and Cheney Spokane Hwy would be safer. It's dangerous turning left onto Cedar from there.

13	I have been a resident living just off of Inland Empire Way on 25th Avenue for over 24 years and am very concerned about the wildlife and natural setting being interfered with by adding more traffic down this very small community. I am OK with improvements that might be made to keep pedestrians and bicyclists safe, but adding more cars does sound counter intuitive. Not to mention the sound of cars driving through our peaceful community. Definitely it is worth the money to add another route along the west side of 195, if there is no other option for Inland Empire Way to be the other parallel multiuse 'run errands' east side route. I do think the Thorpe RD south J-turn is dangerous especially in winter. I am not excited about losing access to 195, as it is an easy access for me to travel to I-90, since I work in the Spokane Valley. The ramp meter has been doing a good job.	4/29/2021 10:13 PM
14	The Parallel Network plan surprises me. Good job with creative plans in a conundrum. I would just want the dark blue projects funded and completed before the city allows further development! We have had too much traffic planning before with no follow through on transportation safety funding and completion.	4/29/2021 9:03 PM
15	I have concerns with both plans but am choosing the Parallel Network option because it claims to help minimize traffic on Inland Empire Way. The noise from 195 is so loud at our house that sometimes we can't hear each other talk when we are outside. The J turn is "above" our house. Not only do we hear the constant road noise but now we hear tire squeals and rapid acceleration when drivers are merging onto the 195 going north. Has any consideration been made to a concrete wall along the highway to help buffer the noise pollution? I see them along other highways. Our neighborhood deserves some peace. New developments will only add to the noise and traffic.	4/29/2021 7:54 PM
16	I've lived in Eagle Ridge for 7 years so have first-hand experience with the transportation shortcomings between Eagle Ridge and downtown as well as between Eagle Ridge and the Hatch Road route to the South Hill. Developers seem eager to add hundreds more housing units to this area as soon as projects can be approved, and there is much more potentially developable land west of US 195 along this corridor. This project needs to be built with the changing needs of the next 10-20 years in mind, not just the current deficiencies. The #2 option seems to add more capacity now where it's needed and better lay the groundwork to further develop transportation options in the future. Please, no more band-aids!	4/29/2021 7:28 PM
17	More/bigger/wider roads will forever be a problem seeking further solutions. I realize the amount of study/time/\$ that have gone into these packages and am surprised that both talk about "pedestrian, cyclist, and transit" concerns but neither discuss the idea of traffic abatement. Nobody walks, cycles, or takes transit from the Eagle Ridge development, nor would from any future development in that area. Nobody driving down Hatch would walk, bicycle, or take transit down Hatch. Nobody driving in from 195 south would walk, bicycle, or take transit. It's moot at this point but what abatement solutions exist that would take ***fewer vehicles*** off the road? Secured parking under the freeway, private bus to the base of Eagle Ridge, free golf cart ride home? I sound glib but am seeking serious answers to these questions. More/bigger/wider roads = more/faster traffic, and will forever be a problem seeking further/more expensive solutions. - Justin (509)413-7094	4/29/2021 3:23 PM
18	Qualchan as an arterial is acceptable if it's improved and perhaps widened. The road quality now is horrific and there's no safe way for people to walk along it's side. Additionally, the intersection at Hatch and 57th is a safety hazard. If reduction of accident or accident potential is a priority, it should be addressed as well.	4/29/2021 9:25 AM
19	I would recommend you open access to Latah valley too and provide more biking lanes to connect to the south hill and fish lake trails.	4/28/2021 7:26 PM
20	The North/South Freeway in Spokane discussions started when I was very young. Every year the price seemed to go up. Now we are in discussions on the 195 corridor. Let's just get started and do it right the first time. The cost will only go up if we do these projects piece meal. Yes it is a lot of money but, with the increase in population in the Spokane area and housing availability at a minimum because of so many people moving here, getting around Spokane has become to say the least cumbersome. Start as soon as possible to make life just a little	4/28/2021 7:05 PM

easier for all of us. Getting around Spokane should not be so difficult and dangerous. Think of the next generation of people who will thank us for looking ahead and acting to improve our infrastructure.

21	They should install traffic lights at 16th, Thorpe, Meadowlane and Hatch. Idaho did it on US 95 north of Coeur d'Alene.	4/28/2021 10:16 AM
22	I feel both of these package address the right now issues and will soon be out grown. City progress and growth is going to happen, but it is the the city responsibly to do it the right way. Not for greedy tax dollars. These j turns are a nightmare. Crossing more traffic lanes than making a left turn, while traffic around you travels at high speeds. Roundabouts are the going answer to traffic in Spokane. The city has studied 195 many times in the 20+ years I have lived in the hangman valley, many horrific accident have occurred. Lots of talk lots of numbers, no action. If this part of Spokane is looking at high growth don't waste money on a band-aid fix, spend the big bucks and do it right the first time.	4/28/2021 8:22 AM
23	Planning for all of the growth and safety of everyone involved (cars, bikes, pedestrians, etc.) should be taken into account and planned for the future. Do not take the cheaper option just because it is cheaper. Plan for the future.	4/28/2021 8:01 AM
24	Package 1 is a short term solution whereas package 2 is more of a long term solution. As cyclists living in the Qualchan area, #2 is much more bike friendly to access the fish lake trail whereas #1 isolates us from it. We are assuming the Sunset Blvd to Inland Empire Way interchange would be improved? It is a bit sketchy now on a bicycle to get across that to access inland empire way	4/28/2021 7:38 AM
25	I have been driving this highway for 21 years - lived 5 years off of 16th Ave, commuting to EWU and then have been commuting from Moran Prairie via Hatch to 16th/Lindeke/Government Way for 8 years. My parents live in Eagle Ridge, and I witnessed an awful accident at the Meadow Lane intersection last year (I was going south and turned R onto Meadow and blocked the view of a car turning L/northbound from Meadow to 195. She pulled out in front of oncoming southbound car as I turned and was broadsided at full speed. When I approached the car the driver was unconscious and hanging limp from her seatbelt, but I later read that she had survived, thank God.) We lived along the bluff in Cannon Hill for 10 years and I heard the sirens from several other awful accidents on those intersections, including one in which a nine year old girl died. With the housing explosion, more aggressive action is needed to ensure these 195 intersections remain safe and accessible. Both packages would dramatically improve things, but I vote for the 2nd more comprehensive package. Also, I hope J-turns at Hatch and Meadow will happen quickly for safety reasons. Acceleration/deceleration lanes would make a huge and quick difference for merging and for visibility at 16th. I hope that will be added quickly. I'm also glad to know you will be addressing the tricky intersection at Hatch and 57th and have plans to make it easier for bikes and cars to share the road on Hatch. Also, I'm curious if the Fish Lake Trail railroad bridge at 16th will be modified and raised so that trucks do not get stuck there anymore? Thank you for all the careful, thoughtful work that has gone into planning these packages that will make commuting safer for my family, friends, and neighbors! I'm grateful.	4/27/2021 11:50 PM
26	Thank you! These neighborhoods need quality safe routes for all types of traffic!	4/27/2021 8:37 PM
27	This package will take away all of the people that just want to travel within Latah valley without them having to get on and off of 195. I travel on 195 south to Colfax and back to Spokane. It would be nice to see less traffic on the highway because of this new additional parallel road. Though in reality the other thing that should happen, is for I90 to go to 2 lanes heading east, right before the 195 on ramp. Then add back in the third lane with the people coming north on 195. This then makes that connection much safer. :-) There would still be plenty of time for people heading east on I90 to move over and take the Maple street exit after the third lane is added back in.	4/27/2021 7:54 PM
28	I think that Spokane needs to grow in a different direction. How about incorporating more on the South Hill past 59th.	4/27/2021 7:01 PM
29	The biggest concern is the extremely limited vision the WSDOT seems to have for the future. While it is acknowledged that Spokane will continue to grow, the proposals here along with the new on-ramp meters are permanent bandaids. They won't truly solve the problems that we have with a transportation network that was never intended to carry this much traffic and certainly not the traffic of the future. We did great putting in an interchange at Yokes - well done! It's seems we've scrapped that plan for Hatch Road - we need this! We also need to be	4/26/2021 9:26 PM

brave and make a plan, like we're doing with the NSC, for I-90 from Sunset Hill -> Hamilton that can handle projected traffic in 2050, or beyond. Safety alone demands it, and in addition it improves efficiency. Efficiency isn't mentioned in these proposals that I can tell, and again raises concerns of limited vision. Inefficient transportation hurts the economy by eating up 1,000 of hours of productivity every day. It also reduces quality of life on many levels. Furthermore it's terrible for the environment. These are big issues that don't seem to be considered here to much depth at all. Please be brave bold and ambitious and propose projects the solve problems rather than bandaids that only temporarily mitigate issues. Thank you.

30	The intersection of Hatch Road and US 195 is in DESPERATE need of alteration- full J-turns are the best immediate solution. The multi-use trail along Hatch between 195 and 57th would be FANTASTIC for cyclists who currently risk riding down, and especially up Hatch. With the likely near-term reality (ill-advised, in my view) of significant additional home construction in the 195 corridor, the fact that Hatch is the only conduit between those homes and South Hill/Moran Prairie schools, shopping and services will add to the already overloaded and dangerous traffic situation. Ultimately, an additional route from 195 to the South Hill and Moran Prairie is needed. Keep gathering public input on this important project!	4/26/2021 6:30 PM
31	Either package is going to cause a lot of disruptions and more traffic on local arterials and neighborhoods. What you need is for the City of Spokane to stop suburban sprawl in the southern west plains area and to develop a whole new road from the vicinity of Hatch Rd to I-90 at Geiger Blvd. Which might be cheaper than the adding of another lane to the Latah Creek I-90 bridge, which would be the ideal real-world option. I regularly use Marshall Rd from 16th to Cheney-Spokane, even though it's always in lousy shape. And when going south to and from the Palouse, I regularly go over the south hill to 57th and Hatch to avoid I-90 and that part of 195 - while in college in the late 60s I discovered going over the south hill between the South Perry District and 195/Hatch was five to ten minutes faster then 195-I-90 to the Altamont exit. If you can put roundabouts on US 2 north of the Division wye and on Hwy 2 for he casino, why can't you put one at 195/Hatch and 195/Meadow Lane. Traffic would benefit from a slowing down from their usual 70+ mph in the area. It would make access south at 57th easier for all the people trying to avoid the high-congestion area between Hatch and I-90. I presently always get off 195 at Thorpe Rd/23rd and go east to IE Way coming up from Cheney-Spokane to avoid the area north of there. I would love a way to get from the Cheney-Spokane Rd I/C to the south end of IE Way on the east side of 195.	4/26/2021 5:49 PM
32	We don't need more roads, we need better public transportation options.	4/26/2021 4:17 PM
33	I chose Package 1 even though I think most of these projects aren't particularly imaginative or bold. In general, they seem to prioritize moving cars first and enabling additional development, rather than moving people (and bikes, pedestrians, transit users, etc.) and concentrating development in the core downtown. Rather than constructing the most substantial and expensive of these investments, I would really like to see SRTC and its partners prioritize improvements to traffic safety using a true Vision Zero approach. We need more separation between bikes/pedestrians/transit users/cars and more of a full-network approach, without building costly new streets that enable sprawl. J-turns, metering, and minor connection improvements, and roundabouts in select areas are the right scale of investment. New streets and roads in rural areas—or more traffic lanes—are not. Additionally, I'd like to see SRTC take a more active role in discouraging / regulating the extensive sprawling development of single-family homes in the Latah Valley. This area should have a rural, not a suburban, character, and the sprawl only makes traffic worse. Additionally, SRTC should do more in transportation demand management (TDM) to discourage unnecessary vehicle trips and encourage people to use transit, bike, walk, or carpool. Right now, it seems like the agency does precious little in this area, and it shows in the prioritization for projects like this.	4/26/2021 2:25 PM
34	Well, you've certainly got your work cut out for you... I chose Package #1 because it might actually be attainable in the foreseeable future. It mostly seems to work. I do wonder how much weight/traffic the old Sunset Bridge can take. The DOT never should have disabled the old Inland Empire northbound connection in the first place. But that said I see that the merging northbound land from Cheney-Spokane may conflict with the J-turn from Thorpe. The Lindeke to Thorpe improvement is vital and closing access to 195 from Thorpe must be part of it. I think many people will find an alternative to I-90 from the West side of 195, such as Grove road. But there will be pushback. The J-turn has made access so much safer and easier that many will not want to let it go. #33. I can't see that happening. That is a sheer rock face with houses above it. It currently is shaded year around and water/ice seeps from the hillside. I believe cutting into it will present the same kind of avalanche/rock fall/slide issues currently	4/26/2021 11:27 AM

occurring on the new cuts on Eastbound I-90 on Snoqualmie pass. But this and many of the other proposed upgrades may well be beyond my life/driving expectancy (I'll be 70 next month.) Let's face it, this all is a mess currently. There are no easy outs in that valley. I think you've done as good a job as possible with all the challenges we all face. Good Luck!

35	I take 195 to I90 every day to go to work. The eastbound I90 onramp is very dangerous, as many people refuse to safely merge. Many people merging onto I90 think they have the right of way and blindly cut off the faster I90 vehicles. A rather cheap improvement would be to add several signs on eastbound I90 instructing through traffic to use the left two lanes. We have these on westbound I90 by the valley mall. There are many interstate drivers that do not drive these routes every day - give them the heads-up that there is dangerous congestion ahead and please get out of the way if you can - a simple reminder to use the left two lanes would help.	4/26/2021 6:30 AM
36	It is necessary for sure to develop better infrastructure be it package #1 or #2. It is well known that a plan should have been put in place and implemented over twenty years ago when 195 was labeled high risk corridor. It has only gotten worse. A J turn may help in some aspects but as an Eagle ridge resident I have witnessed new opportunities for a collision as cars attempt to cross over to finally be able to turn to backtrack to the original direction they wished to travel. To increase traffic on eagle ridge blvd with all the new developments anticipated would just add to the misery. Please implement a plan BEFORE adding all of these new homes. Better access to the south hill via Hatch is a must. As Plan #2 offers more roads my tendency would be to support that plan. In another view, with the increased need for affordable housing and the ability for these people to have transportation access there are opportunities within the city to get rid of the old and unsafe structures that exist and provide housing while improving the look of the city.	4/23/2021 11:19 AM
37	I like the idea of creating alternate routes and improving access roads.	4/23/2021 7:14 AM
38	I am concerned about the potential for diverting arterial traffic into what are currently residential areas. For example, Inland empire is currently very wide, and cars tend to drive much faster than the speed limit. Increasing those trips will make it even more difficult and unsafe to turn onto Inland Empire without associated changes to the design of the streets. I am also curious about the option to make the right bound lane of I-90 east exit entirely at 195, a la I-90 east at Barker, so that the 195 onramp could enter I-90 east as a dedicated lane. The third lane is only added just up the hill, so it seems unlikely that there would be a major capacity problem, and signs already tell through traffic to keep left (which never happens). Why not just force the issue by only having the two left lanes go through?	4/22/2021 9:19 PM
39	As a physician at sacred heart, I bought my home in Grandview specifically because it has direct access to I-90 and one light to get to work. This will add substantial time to get to work for emergencies if I am on call. It's also going to become a bottleneck for the homes on Lindeke . Not fair. I do not like this option. If people coming off of 195 could learn that they have the right of way while turning left onto 16th, perhaps we wouldn't be having a problem.	4/22/2021 6:53 PM
40	Of the two packages, the second seems to give more choice to drivers. As an advocate for personal independence and choice, it's clear which package we should choose—package 2. God bless America.	4/22/2021 6:35 PM
41	I think you need to ask how many people from Cheney/Spokane and Eagle Ridge want to go downtown. Most of us want to go to Costco, Home Depot, Lowes, Walmart in the valley. Some may use Maple/Division exit to access shopping at the same stores on the northside. I think very few want access to the downtown area. I feel you missed the point all together.	4/20/2021 9:36 AM
42	Has there been any thought on the impact of routing traffic to Lindeke to use Sunset Blvd? I'm concerned because Sunset Blvd was narrowed to one lane east bound and on the bridge. The potential for development in this area is significant and would impact this route of travel. There are only two ways to get out of the Grandview neighborhood, one turning on to Lindeke at 16th to take 195 or turning north to use Sunset the other exiting Grandview to Garden Springs/Rustle and use Sunset. Both packages would stress the traffic issues we already experience. And as I have said, development potential is high, it is already happening and is creating significant issues accessing our neighborhood. Would this fix one problem and create another? Has there been any thought to adding an eastbound ramp to I-90 at the top of Sunset hill where Hwy 2 merges onto the interstate? There is already two lanes feeding into the interstate and it looks like there is enough land/right of way off of Garden Springs and Assembly to create a new on ramp. This could alleviate traffic on Lindeke, 195 and Sunset from the Grandview/Thorpe area.	4/13/2021 7:36 PM

US 195/I-90 Transportation Study

A-14

43	Widen 90 bridge over Hangman creek to provide standard merge distance for 195N to 90E connection	4/13/2021 4:25 PM
44	Widen 90 bridge over Hangman creek to provide standard merge distance for 195N to 90E connection	4/13/2021 4:25 PM
45	Marshall Road from Cheney Spokane up over the hills to 195 is rural in character and even spending a LOT of \$ on it it would still not be a great route.	4/13/2021 1:56 PM
46	I hope you sre not substituting in person meetings with this on line presentation. I found it very hard to decipher the map and frankly the presentation was boring and difficult to listen to. I appreciate the time it took to put it together but at least for my household who live off 195 and will be directly impacted by future road work, it wasnt helpful.	4/12/2021 8:27 AM
47	How specifically will this affect residents who live on Lindeke from 16th to 13th? Will this road be widened? If so, how much?	4/10/2021 6:05 PM
48	I live on Sunset Hill and bike frequently on Fish Lk Trail and rural roads between my home and Cheney. Pls keep FLT forested and park-like. I like: Emphasis on safe bicycling & walking. Bike lanes everywhere. Driving between Sunset Hill, Yoke's, and Inl Emp Wy w/o 195. Driving from downtown to Yoke's w/o 195. Using 16th to get to 195 southbound for going farther south. Improving intersection between 195 & Hatch. Making safe space on Hatch for biking & walking.	4/10/2021 3:17 PM
49	Thank you for your professional collaboration and offerings of 2 very well planned solutions. My concern/question is the Qualchan/Cheney Spokane Rd intersection. This is a choke-point for traffic egress from Qualchan Rd to Northbound Cheney-Spokane Rd especially at peak morning hours. In order to alleviate traffic back-ups consider adding a right turn lane/merge lane northbound that would connect to the 2 lanes that begin at the Yokes complex. This would alleviate the choke point at QR/CSR and allow for relatively uninterrupted traffic flow. The relative cost compared to option 2 is attractive and option 2 is very well thought out as well.	4/10/2021 11:52 AM
50	I know package 2 will cost more but in the long run will pay off considering all of the future development that will occur in this area. I don't see anything I object to in the study. Looks good.	4/10/2021 10:44 AM
51	With the plans to reroute traffic from 195. You will be pushing more traffic down our residential area. Making a less safe environment for pedestrians and family's.	4/8/2021 10:00 PM
52	If full J turns at Meadow Lane Rd and 195, traffic will increase on northbound Cedar Rd exiting the Eagle Ridge neighborhood to go north to 195 via the existing on-ramp there. Improvements to the Cedar Rd and Cheney-Spokane Rd intersection should be considered also.	4/8/2021 6:14 PM
53	It is absolutely vital to us to have access to the South Hill from the Overlook at Qualchan/Eagle Ridge area. That is our only close area for shopping, dining and other businesses. PLEASE don't close access to Qualchan Road from 195. And please don't close access to Meadow Lane. We will be completely landlocked without a route to the South Hill. I don't want to spend a half hour winding through other neighborhoods before I can get to 195 and I definitely want to keep easy access to 90 to get to the airport. Using all of these side roads will just make a backup and mess on them. If you really want to improve things, find a way to do an overpass from Eagle Ridge OVER 195 to the South Hill. No one wants to go all the way downtown to get there. Please consider all of us who purchased homes on the west side of 195 and have had access taken away bit by bit every year. Thank you.	4/8/2021 4:35 PM
54	Extending Inland Empire is okay as long as the speed limit is no more than 30 and enforced. We now live in the cul=de=sac area after the road requires a right turn to get to 195 from Thorpe road. Closing Thorpe road will create more traffic for our area bu if the traffic speed is limited it should prove to be acceptable.	4/7/2021 2:43 PM
55	Prefer #2 package if it will actually keep volume low on inland empire way. Concerned about congestion, car idling and air quality if traffic backed up into downtown, traffic speed (too fast), future road widening to accommodate volume, traffic calming, and loss of neighborhood feel to a busy arterial.	4/7/2021 1:36 PM
56	Prefer neither. Just fix 195/90 interchange to set up the region for inevitable growth. Both package simply "kick the can" down the street.	4/7/2021 12:58 PM
57	Do not close 16th West. You will push all that traffic out to Sunset Hill which is already 1 lane less, or into 3rd ave, which is already backed up. You are going to cut off a quickly growing	4/7/2021 8:15 AM

neighborhood of freeway access it has had for 60 years.

58	I don't agree with either of these projects. I live on Lindeke street (right before the bridge over the freeway) and traffic is already terrible. People already don't stop at the stop signs and drive much faster than the speed limit past our house. If they don't speed past our house, they take the wrong road and end up in the dead end. It is already difficult enough for us to get out of our driveway, let alone feel safe in our front yard. This project is going to make it IMPOSSIBLE for us to leave our home. you say that you have interviewed and talked with homeowners in the neighborhood, yet I have not been contacted & given the location of my home am a pretty invested stakeholder.	4/6/2021 8:19 PM
59	Stupid study.	4/6/2021 5:46 PM
60	An arterial connection between Hatch Road and Meadow Lane Road would be incredible! Please try to get funding for that as well!	4/6/2021 5:20 PM
61	n/a	4/6/2021 5:15 PM

Comment	Response
Please make an overpass into eagle ridge. I see so many accidents And near accidents on a daily basis..	Thank you for your comment. This study was initiated to identify practical solutions that can be implemented over the next 20 years. With funding constraints that have limited progress on previously identified solutions expected to continue, this study has identified a more practical, sustainable, and implementable vision for the US 195/I-90 area.
It would be fantastic to have more bike and foot friendly options. Thanks!.	Thank you for the positive feedback. Project numbers 16,17,21,26 and 20 are focused on bicycle and pedestrian improvements. A number of other projects would improve bicycle/pedestrian connections on existing roadways or provide a new connection that includes dedicated space for bicyclists and pedestrians.
I like how this is turning out. It's not a panacea, but definitely addresses more pressing near term mobility and safety needs. I think the j turns at hatch will definitely help, but I continue to have concerns regarding capacity issues up Hatch. I suspect the j turns will act as a regional attraction, thereby increasing traffic on hatch..	Thank you for the positive feedback. Project number 20 would provide a multiuse trail on Hatch Road to separate bicyclists and pedestrians from vehicle traffic while project number 19 would address capacity issues at the Hatch Road & 57th Avenue intersection.
24. Inland Empire Way Connection. This should be designed such that the Existing trail be maintained..	Thank you for the comment. The Lindeke Street Connection (Project #9) would maintain the existing Fish Lake Trail and grade separated crossing.
nice! as a nearby resident I am fully in support of the study and the 26 accompanying projects resulting from it. keep up the great work..	Thank you for the positive feedback and encouragement.
I didn't see anything about the Cheney Spokane Cedar intersection. Is that part of the cedar straightening? Nor was there any mention of wildlife: how many moose and deer have to die on the road to get their interest included? and aren't they considered a road hazard? and lastly, why didn't you include white rd in your study?.	The Cedar Road Realignment (Project # 8) includes the realignment of Cedar Road and a new intersection at Cheney-Spokane Road just west of the Spokane-Cheney Memorial Gardens.
If additional developments in Latah valley/Eagle ridge are being considered, then there needs to be a Thorough review of Traffic safety in the area including overpasses on ramps at meadowlane and hatch, as well as safety measures to Ensure Evacuation routes should natural disasters such as wildfires should occur..	Thank you for your comment. This study was initiated to identify practical solutions that can be implemented over the next 20 years. With funding constraints that have limited progress on previously identified solutions expected to continue, this study has identified a more practical, sustainable, and implementable vision for the US 195/I-90 area.
So way not do something like they did going down 195 to the tri City's.	Thank you for the feedback.
e/B I-90 right lane should be exit-only to s/B 195. 195 N/B would merge into it's own lane on E/B I-90 which would become a merge lane between 195 and Maple ex 57th and hatch should be a roundabout. hatch needs significant improvement..	Thank you for the feedback. WSDOT does not support the proposal to reduce a lane on I-90 to facilitate the US 195 EB merge for the following reasons: <ul style="list-style-type: none"> •Traffic counts on eastbound I-90, collected in 2018, indicate that during peak hours are near 4,000 vehicles per hour. With growth continuing to occur along I-90 and US 2, volume on I-90 is likely to exceed capacity in the near-term if capacity is reduced. •In 2019, volume on I-90 exceeded the value used for closing a lane on the interstate based on the Highway Design Manual in 15% of the hours measured (8,736 hours for the entire year). This indicates that closure of a lane could result in increased congestion on I-90 and US 2. •WSDOT has a stewardship responsibility with the Federal Highway Association (FHWA) for the operations of I-90, which is a T-1 freight corridor serving national functions. Reducing capacity on a T-1 corridor to benefit a T-2 corridor, predominantly used for regional good movement would not align with that stewardship. •Revisions to I-90 require FHWA approval prior to implementation of the proposed concept. Project numbers 19 and 20 propose improvements to Hatch Road including a multiuse trail for bicyclists and pedestrians and intersection control at 57th & Hatch (e.g., roundabout or traffic signal to be determined by the City of Spokane).
This is a very long and involved report. Most of which I understand but are overwhelmed by. As a new resident, 3 years now, I am concerned not only with safety and cost to the community but also the cost to the environment. No where in this report was there mention of a wildlife corridor. Nor, do they mention the trash along our highways and roads. with increased traffic comes concern for both of these issues and for how they will be addressed. thank you..	Thank you for the feedback. Wildlife corridors and trash were not part of the scope of this study but your comments have been forwarded to the City and WSDOT for future consideration.
I don't see any improvements to the existing road surface of Qualchan Drive, just the \$0.9M bike path. Qualchan Dr. is currently in awful and unsafe com.	Thank you for your comment, it has been forwarded to the City of Spokane for consideration.
THANKS FOR YOUR WORK. AS SOMEONE WHO HAS LIVED OFF THE PALOUSE HWY AND WILLOW SPRINGS FOR 25 YEARS, WE HAVE USED THE HATCH INTERCHANGE FREQUENTLY, SOMETIMES MULTIPLE TIMES/WEEK. WHILE A LIGHT AT 57TH AND HATCH WOULD HELP WITH CONGESTION AT 195, FOR SAFETY HATCH NEEDS TO BE WIDENED AND SUPPORTED FOR BIKE/PED LANES-THROUGH RIGHT OF WAY CHANGES/ EMINENT DOMAIN-AND WIDER BRIDGE AT 195.THE BRIDGE AT HATCH/195 HAS BEEN REBUILT DOWN TO THE STEEL SUPPORTS AT 2-3 TIMES THAT I CAN REMEMBER, THE ROAD/BRIDGE SURFACE DETERIORATES QUICKLY FOR WHATEVER REASON, IM QUESTIONING THE QUALITY OF THE WORK/MATERIAL USED. I UNDERSTAND JTURNS ARE PROBABLY THE LEAST EXPENSIVE SOLUTION TO THE 195-HATCH CONNECTION, WILL THEY HOLD UP TO THE GROWTH IN THE AREA, AND WILL THEY WORK WITH THE FRONTAGE/PARALLEL ROADS PROJECTED WEST OF 195? THANKS, BRUCE	Thank you for your feedback and questions. Project numbers 12, 19, and 20 would improve operations at the Hatch Road/US 195 intersection, provide a multiuse trail for bicyclists and pedestrians on Hatch Road, and address intersection control at the Hatch Road/57th Avenue intersections. Your remaining questions have been forwarded to the City and WSDOT for consideration.

Comment	Response
<p>Get rid of the US 195/I-90 Ramp Metering, it Doesn't work. Instead merge the traffic on the right lsne on i-90 over before the i-95 merge.</p>	<p>WSDOT does not support the proposal to reduce a lane on I-90 to facilitate the US 195 EB merge for the following reasons:</p> <ul style="list-style-type: none"> •Traffic counts on eastbound I-90, collected in 2018, indicate that during peak hours are near 4,000 vehicles per hour. With growth continuing to occur along I-90 and US 2, volume on I-90 is likely to exceed capacity in the near-term if capacity is reduced. •In 2019, volume on I-90 exceeded the value used for closing a lane on the interstate based on the Highway Design Manual in 15% of the hours measured (8,736 hours for the entire year). This indicates that closure of a lane could result in increased congestion on I-90 and US 2. •WSDOT has a stewardship responsibility with the Federal Highway Association (FHWA) for the operations of I-90, which is a T-1 freight corridor serving national functions. Reducing capacity on a T-1 corridor to benefit a T-2 corridor, predominantly used for regional good movement would not align with that stewardship. •Revisions to I-90 require FHWA approval prior to implementation of the proposed concept.
<p>a bit late for this report. but if there was a 195 to paloose hwy link around stentz road you could route a large portion of the 33% that is headed thru downtown spokane east. save drive time and lessen congestion at 195/I-90..</p>	<p>Thank you for your comment. This study was initiated to identify practical solutions that can be implemented over the next 20 years. With funding constraints that have limited progress on previously identified solutions expected to continue, this study has identified a more practical, sustainable, and implementable vision for the US 195/I-90 area. Your suggestion has been forwarded to the County and WSDOT for consideration.</p>
<p>I am a professional driver and have used the I-195 to Eastbound I-90 merge a number of times in my position as a driver since 2009. I hate it, thanks. The metering added to the interchange does NOT help and adds to the possibility of being struck while trying to merge. The angle is Horrible, and no matter your speed, you're taking your life in your hands due to opposing traffic. there may or may not be an opening and people may or may not let you in. And you have to do it all with traffic coming up to your left rear quarter..</p>	<p>Thank you for the feedback. The addition of ramp metering at the US 195 ramp has reduced collisions by 63% as the ramp meters create necessary gaps between entering vehicles. The stop bar for the ramp meter provides 840 feet of acceleration length, which exceeds the minimum length required by the Highway Design Manual. A primary consideration for speed on this ramp is the 40 MPH advisory speed, which is due to the long curve before a short tangent, limiting drivers speeds.</p>
<p>Appreciate the thoroughness of the study. It would be nice to prioritize the bicycle infrastructure between Eagle Ridge & Qualchan to the Fish Lake Trail as a near-term improvement. That improvement would open up an entire neighborhood to a safe, easy ride to Cheney, Downtown Spokane, and beyond, while helping to <u>alleviate the stress on 195..</u></p>	<p>Thank you for your comments, they have been provided to the City of Spokane to consider for near-term prioritization.</p>
<p>Thank you for the study! I have a problem with the 'j' turns they seem to have been designed by a person who has never driven in the snow. stopping traffic in the middle of a hill then having them cross two lanes of a highway; to an acceleration lane was a poor choice. have you thought to cover 100% of the bike and walking routes to make them useable all year? say for up to 5 miles from downtown? cover them with solar panels, they will pay for themselves. thank you.</p>	<p>Thank you for the feedback. Your comment has been forwarded to WSDOT and the City for consideration.</p>
<p>KAFKAESQUE. Make Merging onto 1-90 its own lane. Doesn't cost 400\$ mill either. What a Joke.</p>	<p>Thank you for the feedback.</p>
<p>I would like to know what is driving this urban sprawl in the US-195 valley. This type of development seems to go against the GMA and Spokane's Comprehensive plan. Also, the folks who live in this valley will be forced to use exclusively (almost) motor VEHICLES. The development of this area goes against common <u>environmental SENSE. Homes for the rich from out of state or the west side?</u></p>	<p>Thank you for your comments, they have been provided to the City of Spokane for consideration.</p>
<p>Thank you for making so many resources available to the public. I'd like to comment on the 195 Plan, specifically in regard to the planned Hatch Rd safety improvements for walking and bicyclists.</p> <p>With the steadily increasing traffic on 195 and bottlenecks at I-90 eastbound on-ramp, Hatch rd has become a evermore popular route for motorists to access Spokane, including "jumping" the hill to get onto I-90 at Freya. This puts a lot more traffic onto Hatch than I believe the Plan accounts for, which increases the need to make safety improvements.</p> <p>I'd like to suggest that more data be collected from Hatch during the AM and PM commutes and believe this could impact the timeframe to implement the planned safety improvements. Ideally, changing Hatch Rd safety improvements from "Supporting Investment" to be an actual "Near Term" project will be in the best interests motorists and cyclists alike.</p> <p>I appreciate your consideration</p> <p><u>Interurus Architecture</u></p>	<p>Thank you for your comments and suggestions. They have been provided to the City of Spokane for consideration.</p>
<p><u>I appreciate the detailed planning of the projects outlined. I am genuinely concerned about the growth surrounding the eagle ridge area and the here-to-fore lack preparation for the increased traffic. in addition to the proposed plans, I would like to see steps taken to protect the wildlife that continues to inhabit this area. Moose are killed every summer on i95, and people are injured. even signage as to Moose Crossing would help, and would receive a positive reception from homeowners here. It would be a good faith effort that our concerns have been heard and an easy step forward</u></p>	<p>Thank you for your suggestion, it has been provided to WSDOT for consideration.</p>

Comment	Response
<p>No offence, the US-195 Study is a great Civil Engineering document.</p> <p>However, as stated below, the project is not good for Spokane City nor our environment. (poor environmental impact for air, water, land, energy, economics, etc.)</p> <p>Why build homes in the US-195 corridor that will be sold for twice what the average home price is in Spokane City?</p> <p>What is the leadership at SRTC thinking? This is the 21st Century, not the 1950s where the automobile was king.</p> <p>You might like to read 'Confessions of a Recovering Engineer' by Charles Marohn PE. Resource materials for his book are at <https://www.confessions.engineer/supplemental-materials></p> <p>I suggest the engineers at SRTC look at this one minute video <https://youtu.be/CRD_vxP6dIE> from Mr. Marohn's book.</p>	<p>Thank you for your comments and links, they have been provided to the members of the Study Advisory Team. We are familiar with Mr. Marohn's work and with Strong Towns.</p>

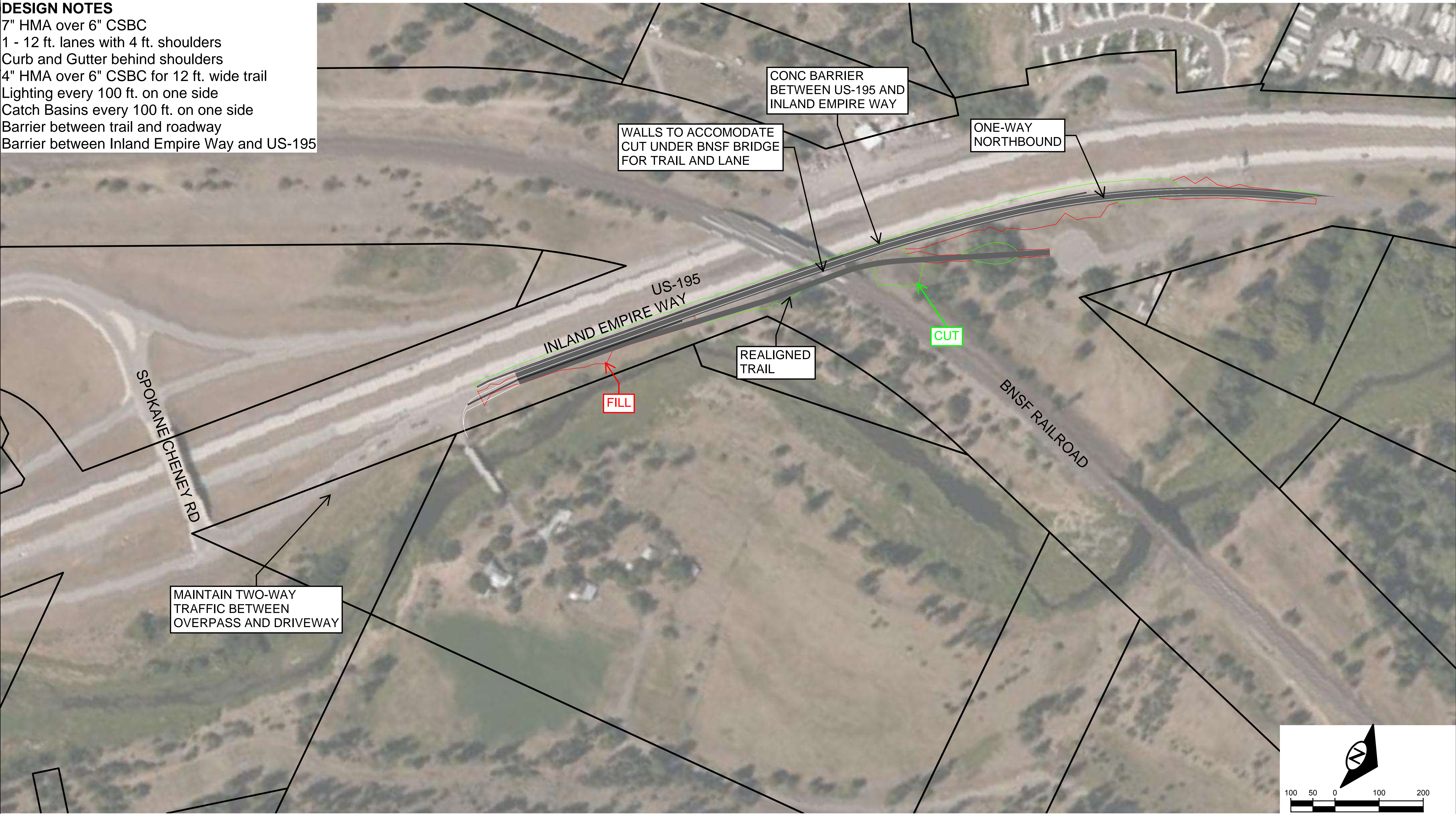
Appendix B: Project Layouts & Cost Estimates

Planning Level Cost Estimate**Project #9 Inland Empire Way Connection: Phase 1 (One-Way Connection)**

ITEM	UNIT	QUANTITY	UNIT COST	SUB-TOTAL
Mobilization	LS	1	\$ 300,000	\$ 300,000
Erosion Control	LS	1	\$ 25,000	\$ 25,000
Signing and Striping	LS	1	\$ 15,000	\$ 15,000
Pavement 7" HMA	TON	2,100	\$ 130	\$ 273,000
Pavement 4" HMA For Trail	TON	400	\$ 110	\$ 44,000
CSBC 6"	TON	2,200	\$ 30	\$ 66,000
2" HMA Overlay	TON	5,200	\$ 130.00	\$ 676,000.00
2" Grind	SY	45,600	\$ 7.00	\$ 319,200.00
4" Cem Conc Sidewalk	SY	2,920	\$ 40.00	\$ 116,800.00
Cem Conc Curb and Gutter	LF	5,252	\$ 25.00	\$ 131,300.00
Traffic Calming & Landscaping	LS	1	\$ 80,000.00	\$ 80,000.00
Cut	CUYD	1,800	\$ 8	\$ 14,400
Embankment Compaction	CUYD	1,800	\$ 6	\$ 10,800
Fill	TON	2,300	\$ 30	\$ 69,000
Traffic Barrier	LF	3,060	\$ 50	\$ 153,000
Impact Attenuator	EA	1	\$ 20,000	\$ 20,000
Driveways	EA	1	\$ 15,000	\$ 15,000
Illumination	EA	20	\$ 15,000	\$ 300,000
Wall	SQFT	10,000	\$ 40	\$ 400,000
12" Drain Pipe	LF	2,000	\$ 35	\$ 70,000
Catch Basins	EA	20	\$ 1,200	\$ 24,000
Detention Facility	LS	1	\$ 100,000	\$ 100,000
Clearing	AC	3	\$ 24,000	\$ 78,000
Removals	LS	0	\$ -	\$ -
MOT	LS	1	\$ 300,000	\$ 300,000
ROW (un-improved)	SQFT		\$ 10	\$ -
Slope/Construction Easement	SQFT		\$ 5	\$ -
Misc. (20%)				\$ 720,100
RR Coordination				\$ 175,000
Design Fees (30%)				\$ 1,296,180
Survey				
Geotech				
Environmental				
Hydraulics				
Admin				
Construction Contingency (10%)				\$ 432,060.00
Construction Management (15%)				\$ 712,899.00
Total				\$ 6,936,739

Estimated in 2021 based on current costs.

DESIGN NOTES
7" HMA over 6" CSBC
1 - 12 ft. lanes with 4 ft. shoulders
Curb and Gutter behind shoulders
4" HMA over 6" CSBC for 12 ft. wide trail
Lighting every 100 ft. on one side
Catch Basins every 100 ft. on one side
Barrier between trail and roadway
Barrier between Inland Empire Way and US-195



Planning Level Cost Estimate

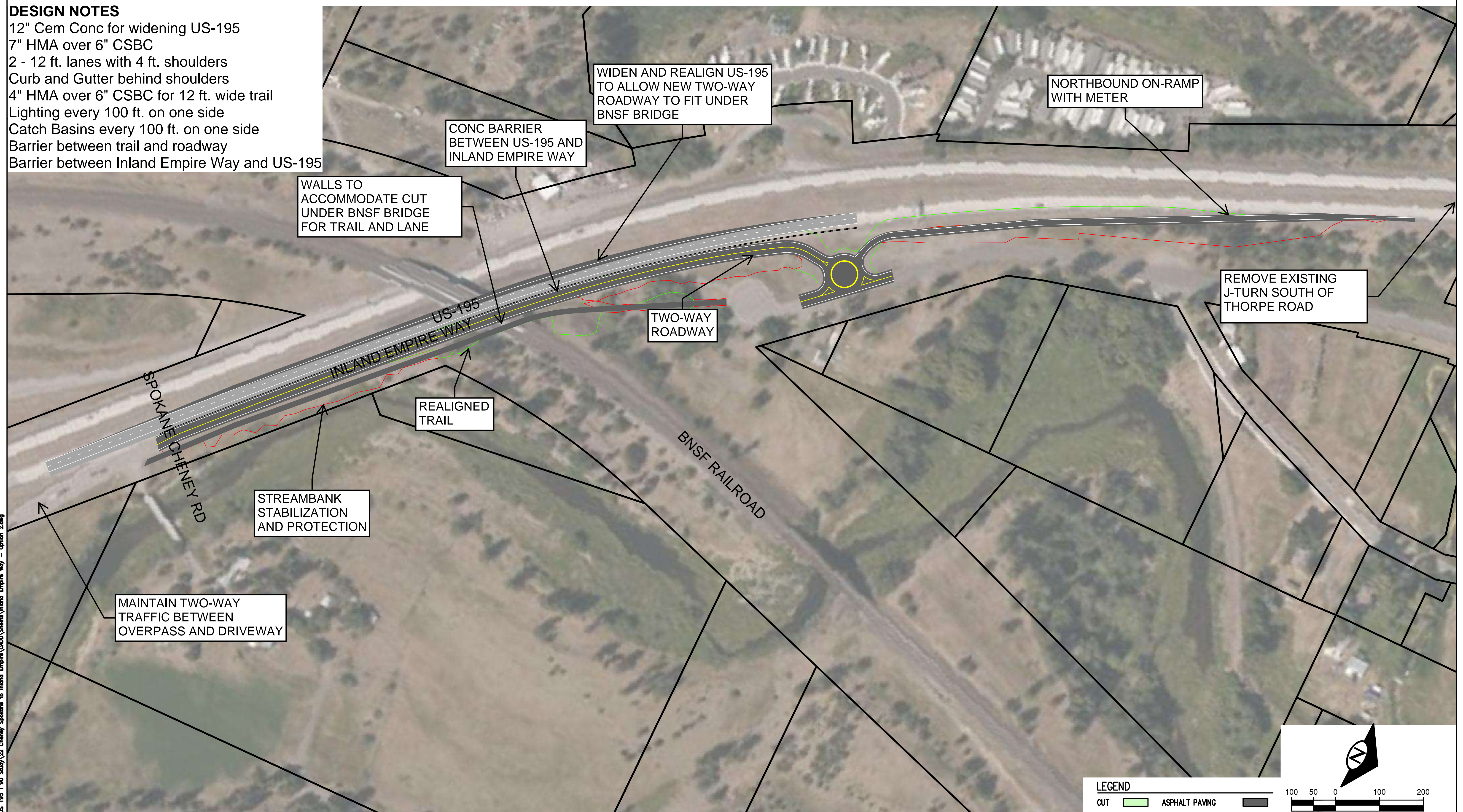
Project #9 Inland Empire Way Connection: Phase 2 (Two-Way Connection)

ITEM	UNIT	QUANTITY	UNIT COST	SUB-TOTAL
Mobilization	LS	1	\$ 300,000	\$ 300,000
Erosion Control	LS	1	\$ 25,000	\$ 25,000
Signing and Striping	LS	1	\$ 15,000	\$ 15,000
Pavement 7" HMA	TON	3,900	\$ 130	\$ 507,000
Pavement 4" HMA For Trail	TON	430	\$ 110	\$ 47,300
Pavement 12" Cem Conc	CY	1,300	\$ 300	\$ 390,000
CSBC 6"	TON	3,800	\$ 30	\$ 114,000
2" HMA Overlay	TON	5,200	\$ 130.00	\$ 676,000.00
2" Grind	SY	45,600	\$ 7.00	\$ 319,200.00
4" Cem Conc Sidewalk	SY	2,920	\$ 40.00	\$ 116,800.00
Cem Conc Curb and Gutter	LF	5,252	\$ 25.00	\$ 131,300.00
Traffic Calming & Landscaping	LS	1	\$ 80,000.00	\$ 80,000.00
Cut	CUYD	5,500	\$ 8	\$ 44,000
Embankment Compaction	CUYD	5,500	\$ 6	\$ 33,000
Fill	TON	5,300	\$ 30	\$ 159,000
Traffic Barrier	LF	2,761	\$ 50	\$ 138,050
Impact Attenuator	EA	1	\$ 20,000	\$ 20,000
Driveways	EA	1	\$ 15,000	\$ 15,000
Illumination	EA	20	\$ 15,000	\$ 300,000
Ramp Meter	EA	1	\$ 100,000	\$ 100,000
Relocate DMS Sign	LS	1	\$ 250,000	\$ 250,000
Wall	SQFT	10,000	\$ 40	\$ 400,000
12" Drain Pipe	LF	2,000	\$ 35	\$ 70,000
Catch Basins	EA	20	\$ 1,200	\$ 24,000
Detention Facility	LS	1	\$ 100,000	\$ 100,000
Clearing	AC	3	\$ 24,000	\$ 78,000
Removals	LS	0	\$ -	\$ -
MOT	LS	1	\$ 300,000	\$ 300,000
ROW (un-improved)	SQFT		\$ 10	\$ -
Slope/Construction Easement	SQFT		\$ 5	\$ -
Misc. (20%)				\$ 950,530
RR Coordination				\$ 175,000
Design Fees (30%)				\$ 1,710,954
Survey				
Geotech				
Environmental				
Hydraulics				
Admin				
Construction Contingency (10%)				\$ 570,318.00
Construction Management (15%)				\$ 941,024.70
Total				\$ 9,100,477

Estimated in 2021 based on current costs.

Z:\1900001-1900999\1900796 US 195 I 90 Study\22 Cheney Spokane to Inland Empire\CADD\Sheets\Inland Empire Way - Option 2.dwg

DESIGN NOTES
12" Cem Conc for widening US-195
7" HMA over 6" CSBC
2 - 12 ft. lanes with 4 ft. shoulders
Curb and Gutter behind shoulders
4" HMA over 6" CSBC for 12 ft. wide trail
Lighting every 100 ft. on one side
Catch Basins every 100 ft. on one side
Barrier between trail and roadway
Barrier between Inland Empire Way and US-195



LEGEND

CUT		ASPHALT PAVING	
FILL		CONCRETE PAVING	

SCALE IN FEET

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Project #9: Inland Empire Way Connection
Phase 2 (Two-Way Connection)

Planning Level Cost Estimate
Project #9 Lindeke Street Extension

ITEM	UNIT	QUANTITY	UNIT COST	SUB-TOTAL
Mobilization	LS	1	\$ 300,000	\$ 300,000
Erosion Control	LS	1	\$ 50,000	\$ 50,000
Signing and Striping	LS	1	\$ 15,000	\$ 15,000
Pavement 7" HMA	TON	7,500	\$ 130	\$ 975,000
CSBC 6"	TON	5,800	\$ 30	\$ 174,000
Remove Asphalt	SY	10,600	\$ 4.00	\$ 42,400.00
7" HMA Overlay	TON	1,210	\$ 130.00	\$ 157,300.00
CSBC 6"	TON	1,090	\$ 30.00	\$ 32,700.00
4" Cem Conc Sidewalk	SY	1,265	\$ 40.00	\$ 50,600.00
Cem Conc Curb and Gutter	LF	2,300	\$ 25.00	\$ 57,500.00
Traffic Calming & Landscaping	LS	1	\$ 50,000.00	\$ 50,000.00
Cut	CUYD	13,700	\$ 8	\$ 109,600
Embankment Compaction	CUYD	13,700	\$ 6	\$ 82,200
Traffic Barrier	LF	0	\$ 25	\$ -
Traffic Islands for Roundabout	CUYD	225	\$ 250	\$ 56,250
Driveways	EA	0	\$ 15,000	\$ -
Illumination	EA	6	\$ 10,000	\$ 60,000
Traffic Signal	EA	0	\$ 300,000	\$ -
Bridge Structure	SQFT	5,355	\$ 200	\$ 1,071,000
Wall	SQFT	0	\$ 40	\$ -
12" Drain Pipe	LF	6,600	\$ 15	\$ 99,000
Catch Basins	EA	660	\$ 1,000	\$ 660,000
Detention Facility	LS	1	\$ 100,000	\$ 100,000
Clearing	AC	5	\$ 24,000	\$ 120,000
Removals	LS	1	\$ 100,000	\$ 100,000
MOT	LS	1	\$ 436,255	\$ 436,255
ROW (un-improved)	SQFT	0	\$ 10	\$ 150,000
Slope/Construction Easement	SQFT	0	\$ 5	\$ -
Misc. (20%)				\$ 989,761
RR Coordination				
Design Fees (30%)				\$ 1,781,570
Survey				
Geotech				
Environmental				
Hydraulics				
Admin				
Construction Contingency (10%)				\$ 593,856.60
Construction Management (15%)				\$ 979,863.39
Total				\$ 9,293,856

Estimated in 2021 based on current costs.

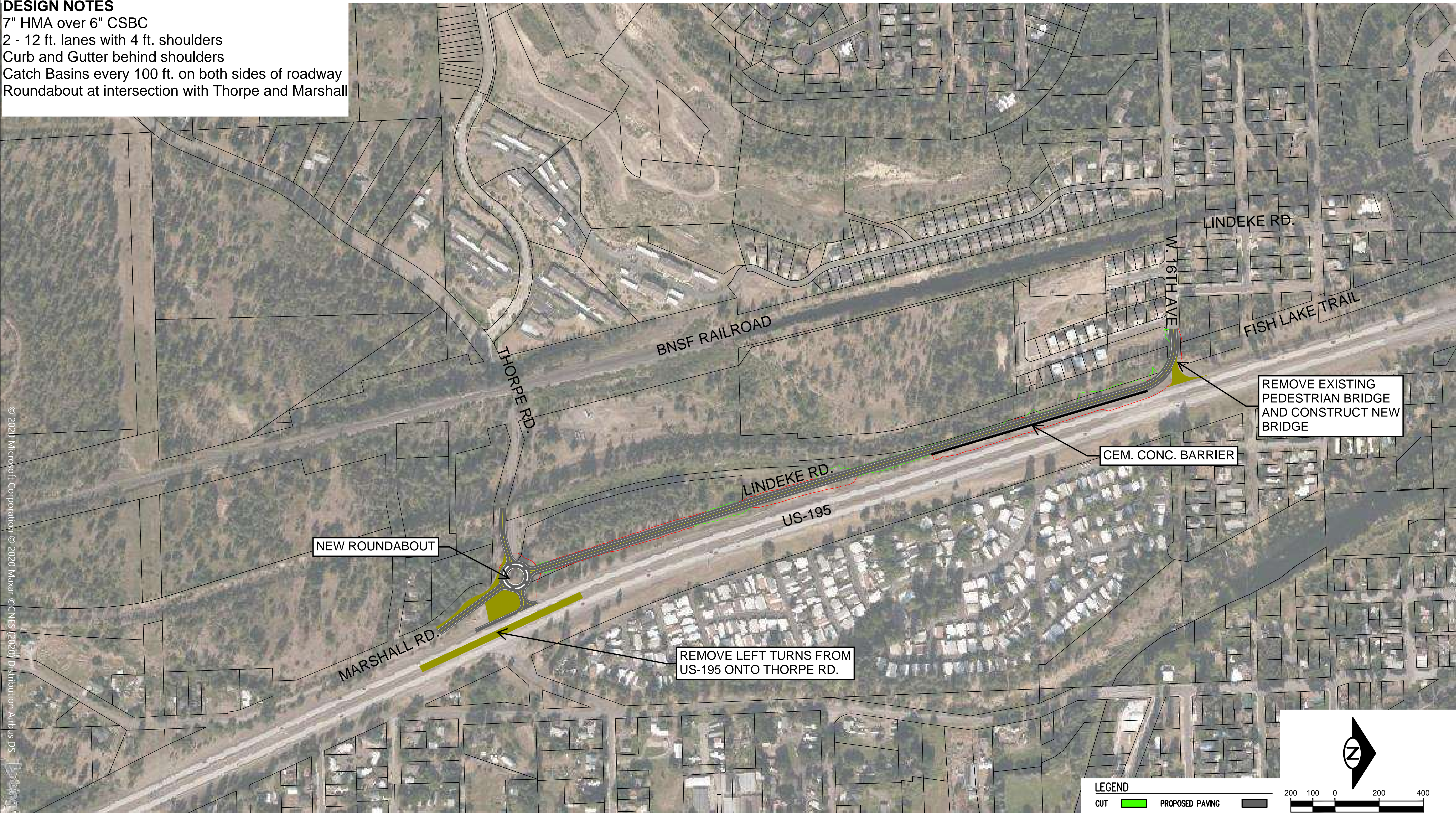
7" HMA over 6" CSBC

2 - 12 ft. lanes with 4 ft. shoulders

Curb and Gutter behind shoulders

Catch Basins every 100 ft. on both sides of roadway

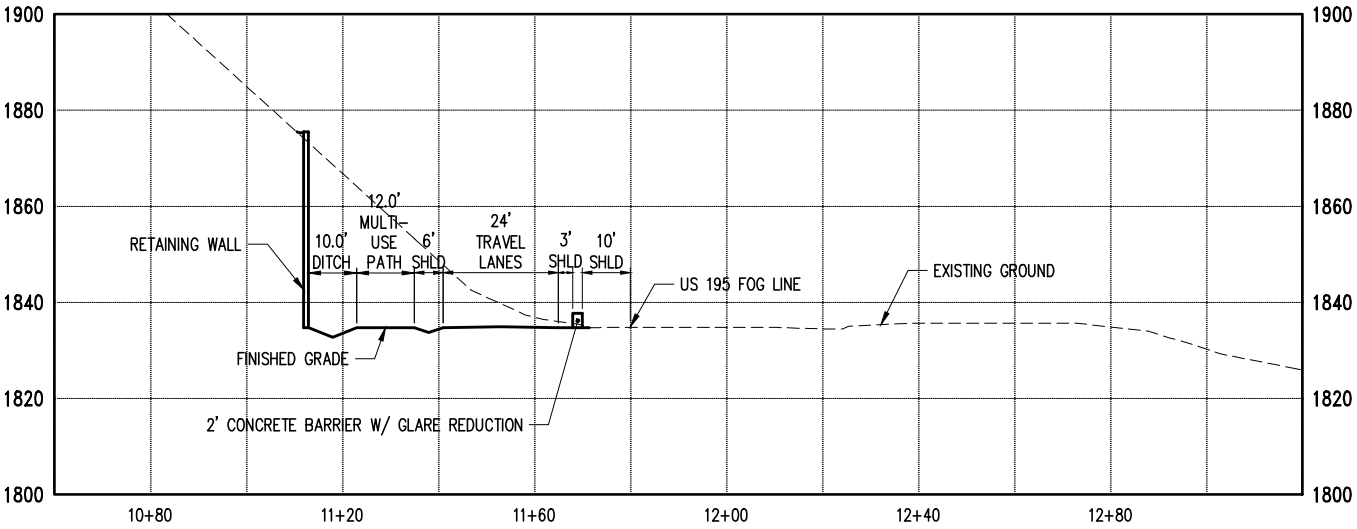
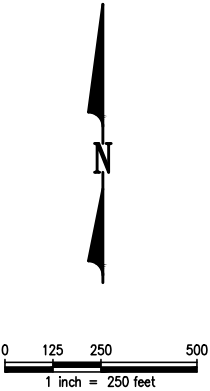
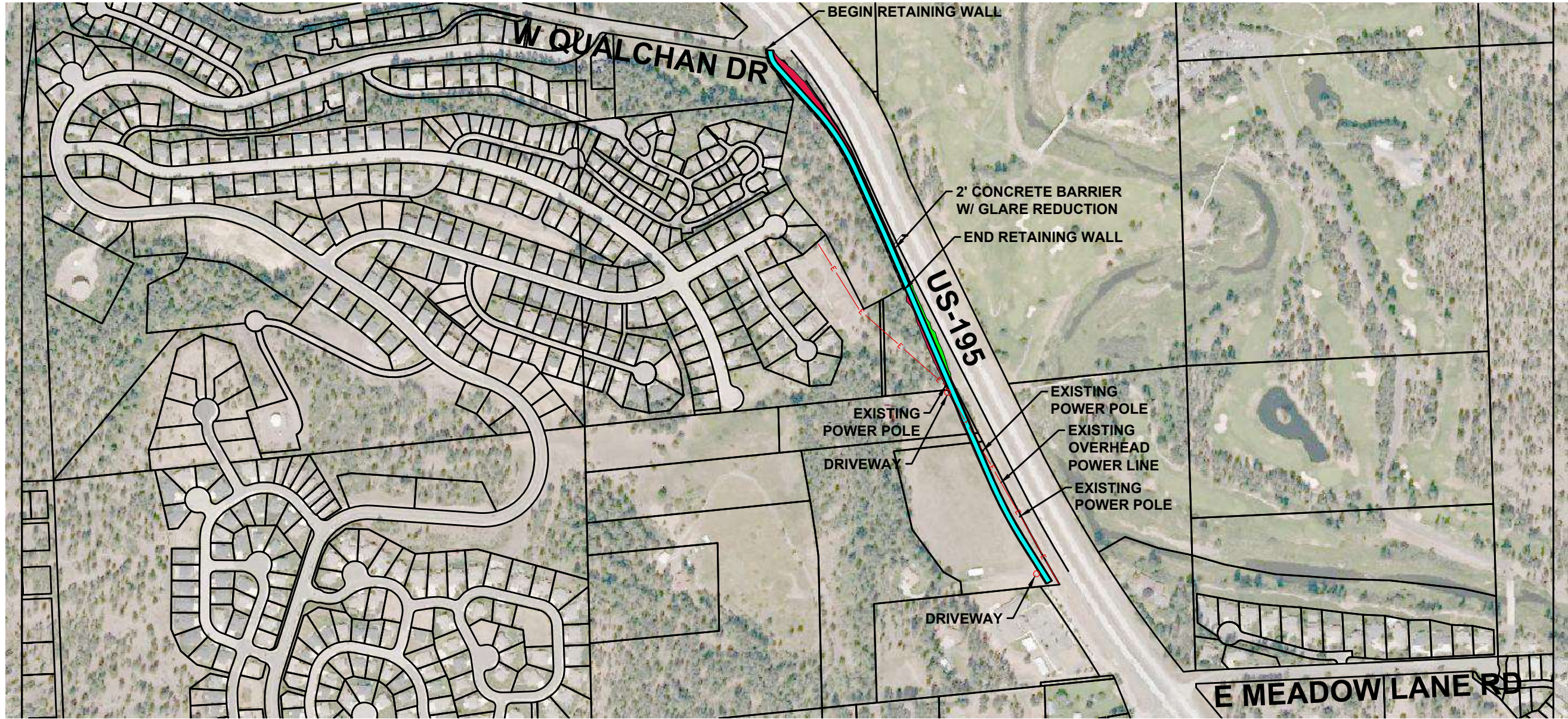
Roundabout at intersection with Thorpe and Marshall



Planning Level Cost Estimate**Project #13 US Qualchan Drive Extension to Meadow Lane Road**

ITEM	UNIT	QUANTITY	UNIT COST	SUB-TOTAL
Mobilization	LS	1	\$ 700,000	\$ 700,000
Erosion Control	LS	1	\$ 50,000	\$ 50,000
Signing and Striping	LS	1	\$ 15,000	\$ 15,000
Pavement 7" HMA	TON	7597	\$ 130	\$ 987,610
CSBC 6"	TON	7000	\$ 30	\$ 210,000
Cut	CUYD	29761	\$ 35	\$ 1,041,635
Fill	TON	30000	\$ 25	\$ 750,000
Traffic Barrier	LF	1000	\$ 25	\$ 25,000
Driveways	EA	6	\$ 15,000	\$ 90,000
Illumination	EA	6	\$ 10,000	\$ 60,000
Pedestrian Hybrid Beacon	EA	1	\$ 150,000.00	\$ 150,000.00
Traffic Signal	EA	1	\$ 300,000	\$ 300,000
Bridge Structure	SQFT	5280	\$ 350	\$ 1,848,000
Wall	SQFT	30000	\$ 45	\$ 1,350,000
12" Drain Pipe	LF	3654	\$ 15	\$ 54,810
Catch Basins	EA	37	\$ 1,000	\$ 37,000
Detention Facility	LS	1	\$ 100,000	\$ 100,000
Clearing	AC	8	\$ 24,000	\$ 192,000
Removals	LS	1		\$ -
MOT	LS			\$ -
ROW	SQFT	174478	\$ 20	\$ 3,489,560
Misc. (20%)				\$ 2,290,123
RR Coordination				\$ 175,000
Design Fees (30%)				\$ 4,122,221
Survey				
Geotech				
Environmental				
Hydraulics				
Admin				
Construction Contingency (10%)				\$ 1,374,073.80
Construction Management (15%)				\$ 2,267,221.77
Total				\$ 21,679,255

Estimated in 2021 based on current costs.



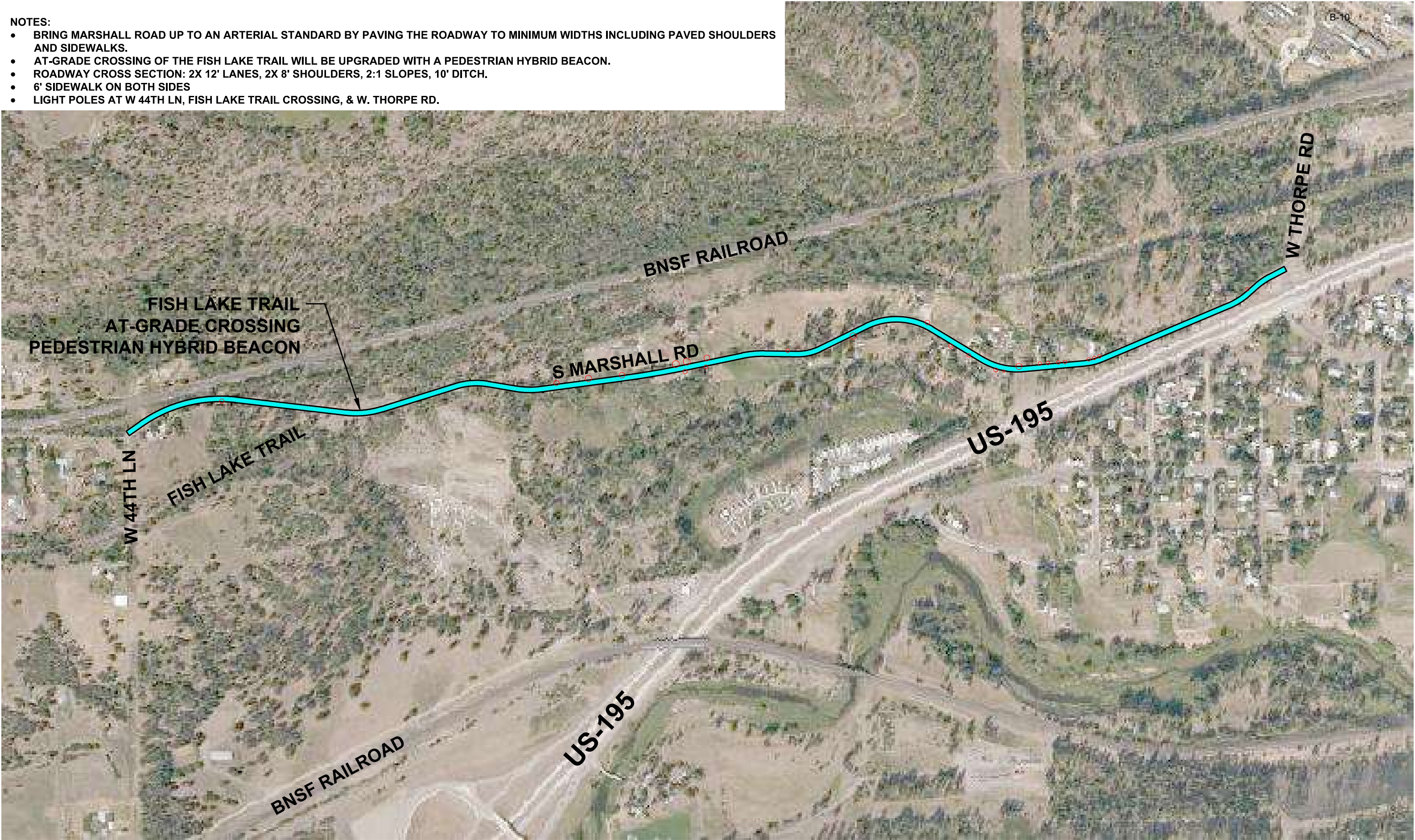
Project #13: Qualchan Drive Extension to Meadow Lane Road

Planning Level Cost Estimate**Project #14 Marshall Road Improvements (Thorpe Road to 44th Avenue)**

ITEM	UNIT	QUANTITY	UNIT COST	SUB-TOTAL
Mobilization	LS	1	\$ 400,000	\$ 400,000
Erosion Control	LS	1	\$ 30,000	\$ 30,000
Signing and Striping	LS	1	\$ 20,000	\$ 20,000
Pavement 7" HMA	TON	11600	\$ 130	\$ 1,508,000
CSBC 6"	TON	9000	\$ 30	\$ 270,000
SIDEWALK 4" CEM CONC	SY	10000.00	\$ 40	\$ 400,000
Cut	CUYD	0	\$ 25	\$ -
Fill	TON	20000	\$ 30	\$ 600,000
Traffic Barrier	LF	0	\$ 25	\$ -
Driveways	EA	25	\$ 15,000	\$ 375,000
Illumination	EA	6	\$ 10,000	\$ 60,000
Pedestrian Hybrid Beacon	EA	1	\$ 150,000	\$ 150,000
Bridge Structure	SQFT	0	\$ 350	\$ -
Wall	SQFT	0	\$ 120	\$ -
12" Drain Pipe	LF	14000	\$ 50	\$ 700,000
Catch Basins	EA	140	\$ 1,000	\$ 140,000
Detention Facility	LS	1	\$ 100,000	\$ 100,000
Clearing	AC	12	\$ 24,000	\$ 288,000
Removals	LS	1		\$ -
MOT	LS	1	\$ 300,000	\$ 300,000
ROW	SQFT	0	\$ 30	\$ -
Misc. (20%)				\$ 1,068,200
RR Coordination				
Design Fees (30%)				\$ 1,922,760
Survey				
Geotech				
Environmental				
Hydraulics				
Admin				
Construction Contingency (10%)			\$	640,920.00
Construction Management (15%)			\$	1,057,518.00
Total			\$	10,030,398

Estimated in 2021 based on current costs.

- NOTES:
- BRING MARSHALL ROAD UP TO AN ARTERIAL STANDARD BY PAVING THE ROADWAY TO MINIMUM WIDTHS INCLUDING PAVED SHOULDERS AND SIDEWALKS.
 - AT-GRADE CROSSING OF THE FISH LAKE TRAIL WILL BE UPGRADED WITH A PEDESTRIAN HYBRID BEACON.
 - ROADWAY CROSS SECTION: 2X 12' LANES, 2X 8' SHOULDERS, 2:1 SLOPES, 10' DITCH.
 - 6' SIDEWALK ON BOTH SIDES
 - LIGHT POLES AT W 44TH LN, FISH LAKE TRAIL CROSSING, & W. THORPE RD.



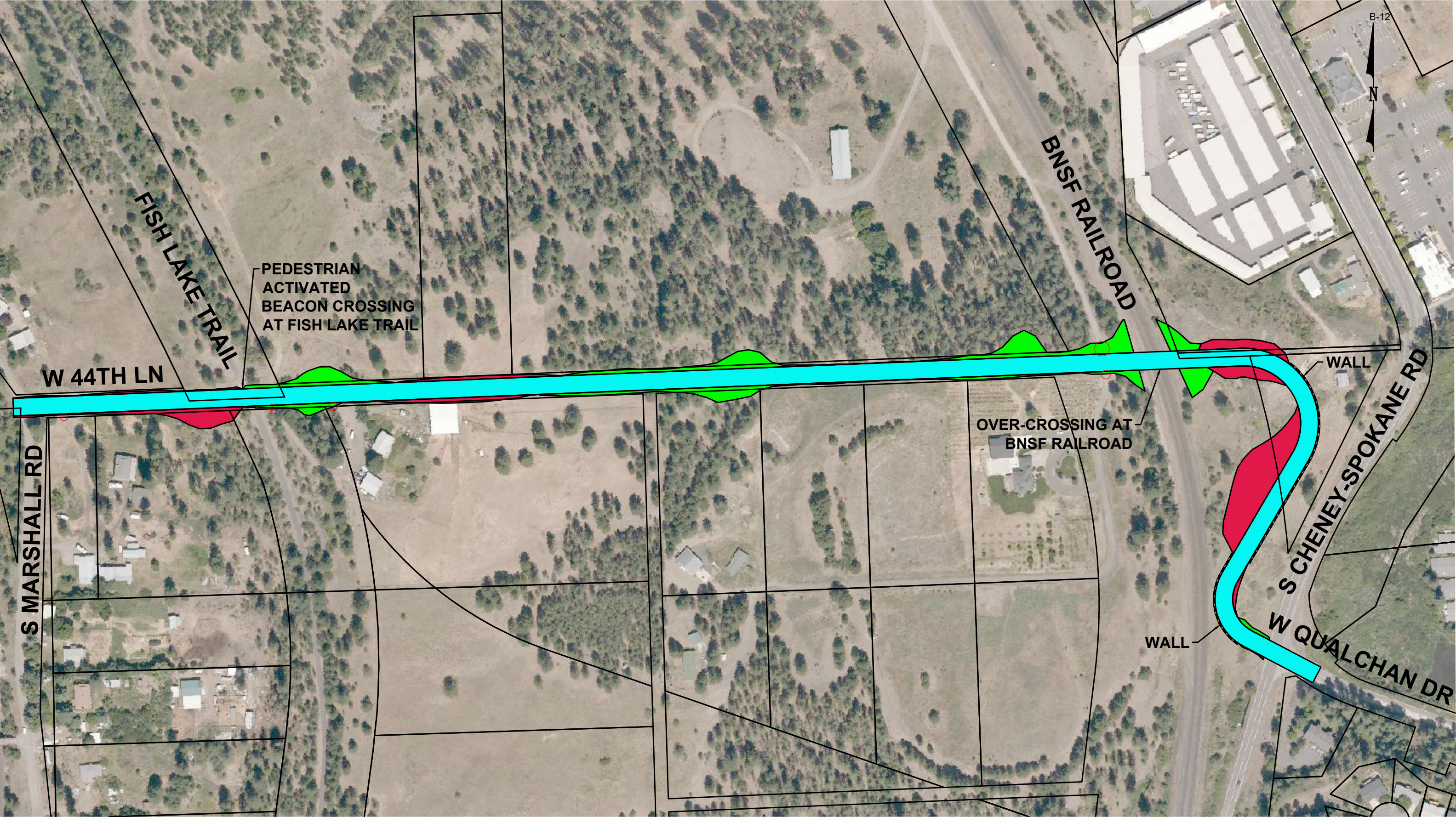
Project #14: Marshall Road Improvements (Thorpe Road to 44th Avenue)



Planning Level Cost Estimate**Project #18 Qualchan Drive Extension to Marshall Road**

ITEM	UNIT	QUANTITY	UNIT COST	SUB-TOTAL
Mobilization	LS	1	\$ 550,000	\$ 550,000
Erosion Control	LS	1	\$ 50,000	\$ 50,000
Signing and Striping	LS	1	\$ 12,000	\$ 12,000
Pavement 7" HMA	TON	3700	\$ 130	\$ 481,000
CSBC 6"	TON	3300	\$ 30	\$ 99,000
Cut	CUYD	100000	\$ 25	\$ 2,500,000
Fill	TON	832.5	\$ 30	\$ 24,975
Traffic Barrier	LF	1003	\$ 25	\$ 25,075
Driveways	EA	3	\$ 15,000	\$ 45,000
Illumination	EA	26	\$ 10,000	\$ 260,000
Traffic Signal	EA	0	\$ 300,000	\$ -
Bridge Structure	SQFT	0	\$ 350	\$ -
Wall	SQFT	50000	\$ 45	\$ 2,250,000
12" Drain Pipe	LF	2641	\$ 20	\$ 52,820
Catch Basins	EA	26	\$ 1,000	\$ 26,000
Detention Facility	LS	1	\$ 100,000	\$ 100,000
Clearing	AC	4.93	\$ 24,000	\$ 118,320
Removals	LS	1		\$ -
MOT	LS			\$ -
ROW	SQFT	90225	\$ 25	\$ 2,255,625
Misc. (20%)				\$ 1,769,963
RR Coordination				
Design Fees (30%)				\$ 3,185,933
Survey				
Geotech				
Environmental				
Hydraulics				
Admin				
Construction Contingency (10%)			\$	1,061,977.80
Construction Management (15%)			\$	1,752,263.37
Total			\$	16,619,953

Estimated in 2021 based on current costs.



- NOTES:**
- ROADWAY SECTION: 2X 12' LANES, 2X 2' SHOULDERS, 1X 6' SIDEWALK SEPARATED BY 6' DITCH, 2:1 SLOPES, CLEARING 20' EACH SIDE OF ROAD FOR DITCH LINE
 - LIGHT POLES AT INTERSECTIONS
 - PROFILE SLOPE DOES NOT EXCEED 8%
 - SINGLE SPAN BRIDGE OVER BNSF RAILROAD
 - COORDINATE WITH CITY OF SPOKANE WATER TRANSMISSION MAIN PROJECT THAT WILL FOLLOW A SIMILAR ALIGNMENT

LEGEND

CUT		FILL		PROPOSED PAVING	
WALL		DRIVEWAY			

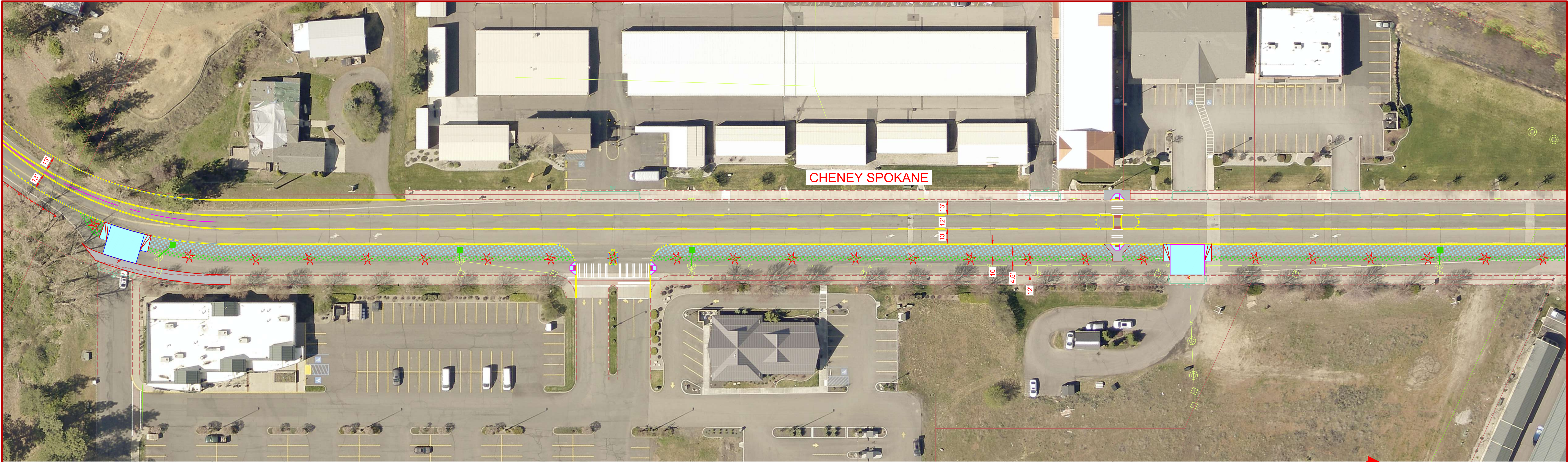
Project #18: Qualchan Drive Extension to Marshall Road

Planning Level Cost Estimate

Project # 25: Meadow Lane to Hatch Road Connection

ITEM	UNIT	QUANTITY	UNIT COST	SUB-TOTAL
Pavement 7" HMA	TON	9167	\$ 130	\$ 1,191,710
CSBC 6"	TON	7091	\$ 30	\$ 212,730
Cut	CUYD	25000	\$ 35	\$ 875,000
Fill	TON	15000	\$ 25	\$ 375,000
Traffic Barrier	LF	1000	\$ 25	\$ 25,000
Driveways	EA	2	\$ 15,000	\$ 30,000
Illumination (pole every 100')	EA	52	\$ 10,000	\$ 520,000
Traffic Signal	EA		\$ 300,000	\$ -
Bridge Structure	SQFT		\$ 350	\$ -
Wall	SQFT	20000	\$ 45	\$ 900,000
12" Drain Pipe	LF	5200	\$ 15	\$ 78,000
Catch Basins	EA	52	\$ 1,000	\$ 52,000
Detention Facility	LS	1	\$ 100,000	\$ 100,000
Clearing	AC	8	\$ 24,000	\$ 192,000
Removals	LS			\$ -
MOT	LS			\$ -
ROW	SQFT	310464	\$ 20	\$ 6,209,280
Misc. (20%)				\$ 2,152,144
RR Coordination				\$ -
Design Fees (30%)				\$ 3,873,859
Survey				
Geotech				
Environmental				
Hydraulics				
Admin				
Construction Contingency (10%)				\$ 1,291,286.40
Construction Management (15%)				\$ 2,130,622.56
Total				\$ 20,208,632

Estimated in 2021 based on current costs.





Appendix C: Additional Scenarios

Table 1. 2040 Roadway Segment Volume (Rosamond Bridge Comparson)

Roadway Segment		2040 Recommended Projects				Recommended Projects without Rosamond Bridge				% Change from Recommended Projects			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	NB US 195 south of Hatch Road	830	-	560	-	830	-	560	-	0%	-	0%	-
	SB US 195 south of Hatch Road	-	500	-	830	-	500	-	830	-	0%	-	0%
2	S Meadow Lane Road west of US 195	440	340	70	1,300	440	340	70	1,300	0%	0%	0%	0%
3	Cheney-Spokane Road between US 195 and W Qualchan Drive	1,270	440	500	990	1,270	440	500	990	0%	0%	0%	0%
4	Marshall Road south of Thorpe Road	400	130	190	270	400	130	190	270	0%	0%	0%	0%
5	Thorpe Road east of US 195	130	160	320	210	150	160	330	210	15%	0%	3%	0%
6	W 16th Avenue between US 195 and S Lindeke Street	680	770	680	320	650	720	670	320	-4%	-6%	0%	0%
7	WB I-90 west of Grove Road interchange	-	2,380	-	2,120	-	2,380	-	2,120	-	0%	-	0%
	EB I-90 west of Grove Road interchange	2,510	-	3,800	-	2,510	-	3,800	-	0%	-	0%	-
8	EB US 2 west of I-90	1,540	-	3,830	-	1,540	-	3,830	-	0%	-	0%	-
	WB US 2 west of I-90	-	2,760	-	2,100	-	2,760	-	2,100	-	0%	-	0%
9	S Lindeke Street south of W Sunset Boulevard	970	180	570	900	1,080	190	560	1,040	11%	6%	-2%	16%
10	NB US 195 south of I-90	3,090	-	1,110	-	3,090	-	1,110	-	0%	-	0%	-
	SB US 195 south of I-90	-	600	-	3,090	-	600	-	3,090	-	0%	-	0%
11	Inland Empire Way just north of Thorpe Road	840	180	580	570	840	180	580	570	0%	0%	0%	0%
12	S Cedar Street between 16th Avenue and 17th Avenue	820	480	660	890	820	480	660	890	0%	0%	0%	0%
13	Hatch Road between Hangman Valley Road and E 57th Avenue	660	830	710	770	660	830	710	770	0%	0%	0%	0%
14	EB I-90 east of Division Street Ramps	6,150	-	6,940	-	6,150	-	6,940	-	0%	-	0%	-
	WB I-90 east of Division Street Ramps	-	6,840	-	6,830	-	6,840	-	6,830	-	0%	-	0%
15	W Qualchan Dr	300	1,250	460	310	300	1,250	460	310	0%	0%	0%	0%
16	Sunset Boulevard	1,320	1,180	1,350	1,210	1,320	1,180	1,350	1,210	0%	0%	0%	0%
17	Lindeke Street south of W 16th Avenue	530	130	340	460	530	130	340	460	0%	0%	0%	0%
18	Inland Empire Connection	560	50	310	350	560	50	310	350	0%	0%	0%	0%
19	Qualchan Extension to Meadow Lane	50	90	90	90	50	90	90	90	0%	0%	0%	0%
20	Qualchan Drive between Marshall Road and Cheney-Spokane Road	140	380	300	200	140	380	300	200	0%	0%	0%	0%
21	Meadow Lane Drive Extension to Hatch Road	140	640	320	390	140	640	320	390	0%	0%	0%	0%

Table 2. 2040 Roadway Segment Volume (STRC Land Use Comparson)

Roadway Segment		2040 Recommended Projects				2040 Recommended Projects with SRTC Land Use				% Change from Recommended Projects			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
1	NB US 195 south of Hatch Road	830	-	560	-	840	-	570	-	1%	-	2%	-
	SB US 195 south of Hatch Road	-	500	-	830	-	510	-	850	-	2%	-	2%
2	S Meadow Lane Road west of US 195	440	340	70	1,300	480	340	110	1,310	9%	0%	57%	1%
3	Cheney-Spokane Road between US 195 and W Qualchan Drive	1,270	440	500	990	1,290	520	510	1,030	2%	18%	2%	4%
4	Marshall Road south of Thorpe Road	400	130	190	270	400	140	200	270	0%	8%	5%	0%
5	Thorpe Road east of US 195	130	160	320	210	160	160	320	220	23%	0%	0%	5%
6	W 16th Avenue between US 195 and S Lindeke Street	680	770	680	320	750	870	740	350	10%	13%	9%	9%
7	WB I-90 west of Grove Road interchange	-	2,380	-	2,120	-	2,390	-	2,120	-	0%	-	0%
	EB I-90 west of Grove Road interchange	2,510	-	3,800	-	2,520	-	3,820	-	0%	-	1%	-
8	EB US 2 west of I-90	1,540	-	3,830	-	1,540	-	3,840	-	0%	-	0%	-
	WB US 2 west of I-90	-	2,760	-	2,100	-	2,780	-	2,100	-	1%	-	0%
9	S Lindeke Street south of W Sunset Boulevard	970	180	570	900	980	190	580	960	1%	6%	2%	7%
10	NB US 195 south of I-90	3,090	-	1,110	-	3,110	-	1,200	-	1%	-	8%	-
	SB US 195 south of I-90	-	600	-	3,090	-	630	-	3,170	-	5%	-	3%
11	Inland Empire Way just north of Thorpe Road	840	180	580	570	850	190	620	590	1%	6%	7%	4%
12	S Cedar Street between 16th Avenue and 17th Avenue	820	480	660	890	830	480	670	900	1%	0%	2%	1%
13	Hatch Road between Hangman Valley Road and E 57th Avenue	660	830	710	770	680	840	720	770	3%	1%	1%	0%
14	EB I-90 east of Division Street Ramps	6,150	-	6,940	-	6,160	-	6,950	-	0%	-	0%	-
	WB I-90 east of Division Street Ramps	-	6,840	-	6,830	-	6,980	-	6,860	-	2%	-	0%
15	W Qualchan Dr	300	1,250	460	310	320	1,300	490	330	7%	4%	7%	6%
16	Sunset Boulevard	1,320	1,180	1,350	1,210	1,320	1,180	1,350	1,220	0%	0%	0%	1%
17	Lindeke Street south of W 16th Avenue	530	130	340	460	530	-	340	-	0%	-	0%	-
18	Inland Empire Connection	560	50	310	350	-	50	-	350	-	0%	-	0%
19	Qualchan Extension to Meadow Lane	50	90	90	90	60	100	100	100	20%	11%	11%	11%
20	Qualchan Drive between Marshall Road and Cheney-Spokane Road	140	380	300	200	150	570	370	230	7%	50%	23%	15%
21	Meadow Lane Drive Extension to Hatch Road	140	640	320	390	230	640	350	440	64%	0%	9%	13%