## Prepared for:

## Central Yavapai Metropolitan

Planning Organization


DRAFT FINAL REPORT

## 1. Regional Transportation Plan <br>  <br> February 2020

# Central Yavapai Metropolitan Planning Organization Regional Transportation Plan Update 2045 

Draft Final Plan

February 2020

Member Agencies:
City of Prescott
Town of Prescott Valley
Town of Chino Valley
Town of Dewey-Humboldt
Yavapai County
Arizona Department of Transportation
United States National Forest Service - Prescott National Forest

Prepared by:

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## Abbreviations

| A | Alternative |
| :--- | :--- |
| ACS | American Community Survey |
| AADT | Average Annual Daily Traffic |
| ADOA | Arizona Department of Administration |
| ADOT | Arizona Department of Transportation |
| ATCMTD | Advanced Transportation and Congestion Management |
| AZGFD | Arizona Game \& Fish Department |
| BLM | Bureau of Land Management |
| BUILD | Better Utilizing Investments to Leverage Development |
| CAT | Crash Analysis Tool |
| CYMPO | Central Yavapai Metropolitan Planning Organization |
| EMAC | Ecosystem Connectivity and Mitigation Advisory Committee |
| FAST | Fixing America's Surface Transportation |
| FHWA | Federal Highway Administration |
| FMPO | Flagstaff Metropolitan Planning Organization |
| GHSA | Governors Highway Safety Association |
| HSIP | Highway Safety Improvement Program |
| HURF | Highway User Revenue Fund |
| I- | Interstate |
| IIP | Infrastructure Improvement Plan |
| INFRA | Infrastructure For Rebuilding America |
| IRI | International Roughness Index |
| LEP | Limited English Proficiency |
| LOS | Level of Service |
| Mph | Miles-per-hour |
| MPO | Metropolitan Planning Organization |
| NACOG | Northern Arizona Council of Governments |
| NAIP | National Agriculture Imagery Program |
| NHFN | National Highway Freight Network |
| OCI | Overall Condition Index |
| PQI | Pavement Quality Index |
| PTI | Planning Time Index |
| RIC | Recommended Investment Choice |
| RSTSP | Regional Strategic Transportation Safety Plan |
| RTP | Regional Transportation Plan |
| SOV | Single Occupancy Vehicle |
| SR | State Route |
| STBG | Surface Transportation Block Grant |
| STP | Surface Transportation Program |
| TAC | Technical Advisory Committee |
| TAZ | Traffic Analysis Zone |
| TIP | Transportation Improvement Program |
| TDM | Travel Demand Model |
| TTI | Travel Time Index |
| V/C | Vehicle-to-Capacity |
| VMT | Vehicle Miles Travelled |
| YRTI | Yavapai Regional Transit Inc. |
|  |  |

## Acknowledgements

## CYMPO Executive Board

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## 1 Introduction

### 1.1 CYMPO Region Overview

The Central Yavapai Metropolitan Planning Organization (CYMPO) is a federally recognized Metropolitan Planning Organization (MPO) located in the population center of Yavapai County. An MPO is a federally designated organization as approved by the governor and the local governments (member agencies) of the designated MPO. Federal legislation designates that an MPO must be established to represent urbanized areas with populations exceeding 50,000 as determined by the U.S. Census during a decennial census count. The CYMPO region was designated following the 2000 Census and is currently comprised of the Town of Prescott Valley, City of Prescott, Town of Chino Valley, Town of Dewey-Humboldt and Yavapai County spanning approximately 435 square miles. The Town of Prescott Valley, City of Prescott, Town of Chino Valley, Town of Dewey-Humboldt, commonly referred to as the Quad Cities, account for only $37 \%$ of the land area of the CYMPO region but hold approximately $71 \%(98,611)$ of the population. Refer to Figure 2 for a visual representation of the CYMPO region.

### 1.2 Regional Transportation Plan Update Purpose

The purpose of this Regional Transportation Plan (RTP) Update is to revise the 2040 CYMPO RTP Update, comprehensively assess regional transportation performance and needs and reprioritize previously recommended and new transportation investments for the CYMPO region with a 2045 target buildout. The plan focuses on short-, medium- and long-term transportation investments.

### 1.2.1 RTP Requirements

An RTP is a federally mandated document for MPOs in order to establish and/or update long-term planning vision and goals as well as reassess changes to the regional system and reprioritize regional investments. Pursuant to Title 23 U.S. Code § 134 and Title 49 U.S. Code § 5303, all metropolitan planning organizations which are not designated with air quality non-attainment are required to update their respective transportation plans at a frequency of no longer than every five years using a $20+$ year planning horizon.

In addition to federal requirements, Arizona executive order mandates that all MPO transportation plans are fiscally constrained and utilize the state demographer's population projections in all traffic model forecasting.

### 1.2.2 RTP Process

Transportation plans are an opportunity to reassess the existing and future regional conditions in order to provide updated guidance towards informed and accurate project identification and programming decision-making. As outlined in Figure 1, the 2045 CYMPO RTP Update incorporated new elements into the planning process

Figure 1 - CYMPO RTP Process

when compared to previous updates. Importantly, the development of the RTP was continually supported by regular input from an extended online public engagement effort as well as technical support and guidance from the CYMPO Technical Advisory Committee (TAC). The update process began with an update to the Plan's vision and goals directly followed by a comprehensive assessment of the existing community profile (including land use, zoning, population and employment) and transportation facility conditions (including pavement, bridge, mobility and safety conditions). A comprehensive future conditions assessment was conducted for the same categories to depict mid- and long-term projected conditions for the community profile and transportation performance and assets. The existing and future conditions were directly used as inputs in the needs assessment. This assessment was conducted in order to identify locations of elevated transportation need across the region as well as establish a performance-based scoring mechanism to score potential project recommendations based on their impact upon those needs. This process was an essential step to create a performance-based analysis system of prioritization, directly relating to performance-based requirements as outlined in the FAST Act. The process to identify a Recommended Investment Choice (RIC) policy utilized direct input from Executive Board, TAC and public comment inputs to create a preferred strategy for regional transportation investments. The recommended plan, developed at both a mid- (2030) and long-term (2045) forecast, was comprised of the preferred RIC and accompanied list of prioritized project recommendations.

### 1.3 Vision \& Goals

In December 2018 the CYMPO Executive Board \& Stakeholder Workshop was conducted with the objective of introducing the plan development team, outline the plan development process and identify the vision and goals for the CYMPO RTP.

During the workshop the CYMPO Board Retreat goals and objectives were used to spur thinking about the goals and objectives for the CYMPO RTP. The workshop participants agreed that the CYMPO RTP Update's vision mirrored the CYMPO agency vision; To promote and maintain a regional coordinated transportation system for the safe and efficient movement of people, goods, and services. Through additional discussion, the workshop participants agreed upon the following CYMPO RTP goals:

- The RTP Update will be needs-based
- The RTP Update will incorporate the concept of forward-thinking
- The RTP Update will incorporate multimodal considerations
- The RTP Update will incorporate wildlife accommodations and considerations
- The RTP Update will place added emphasis on capacity and preservation

Figure 2 - CYMPO Planning Area


## 2 Existing Regional Conditions

### 2.1 Previously Completed Studies

### 2.1.1 CYMPO 2040 RTP Update

The 2040 CYMPO RTP Update was adopted in May 2015. The RTP Update included comprehensive current and future conditions analyses and a transportation investment implementation plan for short-, medium- and long-term transportation investments across the CYMPO region. The following recommendations were included in the RTP Update:

- SR 89 widening to 6 lanes between Deep Well Ranch Road and Center Street
- SR 69 widening to 6 lanes between SR 89 and SR 169
- SR 89A widening to 6 lanes between SR 89 and Fain Road
- SR 169 widening to 4 lanes to Old Cherry Road
- I-17 widening to 6 lanes between SR 69 and SR 169
- Glassford Hill Road widening to 6 lanes
- Construct Side Road Connector
- Extend Stoneridge Drive between SR 69 and SR 89A (Jasper Parkway)
- Construct Northern Connector
- Construct Deep Well Ranch Road (completed)
- Construct Airport Loop Road
- Construct Airport Boulevard
- Construct Granite Dells Parkway
- Construct Great Western Extension
- Construct Glassford Hill Extension
- Construct Santa Fe Loop Road (partially completed)
- Lakeshore Drive widening to 4 lanes
- Construct Sundog Connector
- Old Black Canyon Highway widening to 4 lanes
- Construct Country Club Bypass
- Construct Chino Valley Extension
- Construct Fain Road to SR 169 Connector
- Construct SR 169 to l-17 Connector
- Extend Navajo Drive
- Realign Willow Creek Road (completed)
- Construct James Lane (completed)
- Construct Viewpoint Drive Connector (programmed)
- Construct Enterprise Parkway (completed)
- Extend Road 4 South
- Extend Center Street (completed)
- Extend Road 1 East
- Construct Peavine Trail
- Robert Road Widening (programmed)


### 2.1.2 Yavapai County Comprehensive Plan

The Yavapai County Comprehensive Plan was adopted by the Yavapai County Board of Supervisors on September 17, 2012 and identifies three major transportation goals:

1. Fully integrate coordination between land use planning and transportation planning,
2. Encourage multi-modal transportation opportunities (including transit),
3. Ensured consistency between transportation and land use

Each stated goal is centered on the importance of transportation and land use cohesion and broadening multi-modal options for users.

The Yavapai County Comprehensive Plan also identifies the following major planned regional projects in the CYMPO area:

- Great Western/Glassford Hill Extension, to provide greater connectivity north of Prescott Valley and southeast of Chino Valley. The corridor alignment would connect SR 89A at Great Western Road to SR 89 approximately one mile south of Outer Loop Road.
- I-17 to SR 169 connector, (a continuation of the SR 169 to Fain Road study connector). The new facility would provide a direct connection between I-17 and SR 89A and would alleviate future congestion on SR 69.
- Williamson Valley Road, widen from two lanes to four lanes
- SR 89, widen between Chino Valley and Prescott
- SR 89 and Road 4 North intersection improvement (completed)
- SR 89 and Perkinsville Road intersection improvement (completed)
- SR 89 between Road 5 South in Chino Valley and the Prescott Airport, widen from two lanes to four lanes. (completed)
- A connector between SR 89 and SR 69 is being planned by the Yavapai-Prescott Indian Tribe (constructed).
- SR 69 construction as a six-lane access-controlled roadway


### 2.1.3 2015 City of Prescott General Plan

The 2015 City of Prescott General Plan, adopted on April 14, 2015, identifies the movement of vehicles, pedestrians, bicycles and other transportation items in the Circulation Element of the plan. This plan identifies separate transportation goals for each type of roadway classification; arterial, collector and local streets. The arterial goals include maintaining a Level of Service (LOS) of C or better during peak periods and support alternative transportation modes (walking and bicycling). The collector goals are to adapt, design or retrofit residential routes to facilitate safe connections between neighborhoods and local amenities. The local streets goal is to enhance the neighborhood environment and allow for emergency access and maintain safety as the focus. Beyond classification specific goals, the Prescott General Plan emphasizes pedestrian and bicycle safety, public transit, air travel and traffic safety as priorities. The 2015 City of Prescott General Plan does not provide a detailed list of future transportation projects, instead referring to the plan developed in the CYMPO RTP.

### 2.1.4 2025 Town of Prescott Valley General Plan

The Town of Prescott Valley General Plan 2025, adopted on August 9, 2012 and ratified on March 12, 2013, identifies the movement of vehicles, pedestrians, bicycles and other transportation items in the Circulation Element of the plan. The plan emphasis traffic safety and efficiency, pedestrian safety, economic development and alternative modes of travel. The plan also affirms a second guiding principle
that establishes the need to administratively adopt transportation recommendations made by CYMPO. The general plan adopted the following circulation element goals:

1. Encourage local public transit and other alternative modes of travel,
2. Incorporate a comprehensive public trails system to increase connectivity to parks and other community amenities,
3. Develop a street improvement program that optimizes use of existing infrastructure and supports future projected growth, and
4. Increase connectivity to Ernest A. Love Field (Prescott Airport)

The General Plan lists several improvement projects for the 2025 future build-out network. With the exception of roadways requiring the specified improvements, the Prescott Valley system was anticipated to operate at LOS E or better in 2025. The projects listed would improve the roadways through capacity augmentations, including (but not limited to) signal timing improvements, additional intersection lanes, auxiliary lanes and intersection grade separations. The projects identified are listed below:

- SR 69, Sundog Ranch Road to Prescott East Highway
- Lakeshore Drive, Navajo Drive to Badger Road
- Robert Road, Florentine Road to Lakeshore Drive
- Robert Road, SR 89A to Pronghorn Parkway


### 2.1.5 2014 Town of Chino Valley General Plan

The Town of Chino Valley General Plan, adopted on May 13, 2014, identifies the movement of vehicles, pedestrians, bicycles and other transportation items in the Circulation Element of the plan. The plan establishes the objective to increase employment opportunities and establish community core areas without sacrificing the small-town, rural atmosphere. The plan provides one overarching goal for the transportation system and several supporting strategies. The circulation/transportation goal of the community is to encourage system improvements that incorporate alternative transportation modes. The town identifies six targeted strategies for achieving the following goals:

1. Encouraging new connecting local roadways,
2. Supporting regional goals of widening existing and planning for future major regional connectors,
3. Promoting Yavapai Regional Transit Inc. (YRTI),
4. Encouraging the use of all alternative transportation modes, including transit, paratransit and nonmotorized,
5. Considering "green" practices when constructing new streets, and
6. Adopting a five-year Capital Improvement Program (CIP)

### 2.1.6 SR 89A Transportation Study (2018)

The SR 89A Transportation Study assessed the SR 89A section between the SR 89 interchange and Robert Road intersection. The study's primary objectives were to identify the expansion needs of the corridor and prioritize and prepare $15 \%$ design plans for project recommendations addressing short-, medium- and long-term needs. The following project recommendations were made for the SR 89A corridor:

## Short-Term

- Robert Road Intersection Improvements
- SR 89 TI Eastbound Dual Lane Entrance Ramp
- Great Western Drive At-Grade Intersection Closure
- Viewpoint Drive TI Eastbound Dual Left-turn(programmed)
- Viewpoint Drive TI Westbound Entrance Ramp Extension
- Glassford Hill Road TI Eastbound Free Right (programmed)
- Glassford Hill Road TI Westbound Parallel Entrance Ramp Extension
- SR 89 TI Eastbound Dual Left-Turn


## Medium-Term

- SR 89A Widening, SR 89 to Glassford Hill Road
- Great Western Drive TI
- Glassford Hill Road TI Roundabouts
- Robert Road TI


## Long Term

- SR 89A Widening, Glassford Hill Road to Robert Road TI
- Granite Dells Parkway Roundabout Modifications


### 2.1.7 Chino Valley to Forest Boundary Transportation Study (2017)

The Chino Valley to Forest Boundary Transportation Study assessed SR 89 between Chino Valley and the Forest Boundary. The study's primary objectives were to assess the safety and access concerns of the corridor in anticipation future population and employment growth and reliance upon SR 89 as a critical north-south regional corridor. The following project recommendations were made for the SR 89 corridor:

- Install Raised Median from Butterfield Road to Road 3N and Retime Signal at Road 3N
- Install Raised Median from Perkinsville Road to Road 3N with Roundabout at Road 3N
- Widen to Four-Lane Section with Raised Median from Road 3N to Road 4N
- Widen to Four-Lane Section with Raised Median from Road 4N to Road 5N and Construct Roundabout at Road 5N
- Align Approaches at Road 6N
- Widen to Four-Lane Section with Graded Median from Old Highway 89 to Frontier Road and Construct Roundabouts at Old Highway 89 and Frontier Road
- Construct Left- and Right Turn Lanes at Little Ranch Road (awarded FY 23-24 HSIP funding)
- Install Lighting at Paulden Post Office (completed)
- Construct Roundabout at Big Chino Road
- Construct Roundabout at Bramble Drive
- Install Wildlife Warning Signage from MP 334 to MP 348


### 2.1.8 CYMPO Strategic Regional Transportation Safety Plan (2018)

The Regional Strategic Transportation Safety Plan (RSTSP) was completed in conjunction with the Northern Arizona Council of Governments (NACOG) and the Flagstaff Metropolitan Planning Organization (FMPO) to holistically assess transportation safety regionally. The RSTSP featured a datadriven assessment to fully identify regional safety performance and needs using January 1,2012 , to December 31, 2016 crash data. In addition to identifying a policy-level implementation plan, the RSTSP recommended the following Highway Safety Improvement Program (HSIP) eligible projects:

- SR 89 Shoulder Widening from SR 89A to Rock Formations
- Williamson Valley Road Shoulder Widening from Pioneer Parkway to Kelly Drive
- Outer Loop Road Rumble Strips from Williamson Valley Road to South Reed Road
- Flashing warning signs at Fain Rd/SR 69, Fain Road/SR 89A and SR 69/Spring Valley Road intersections


### 2.1.9 SR 69 Corridor Profile Study (2018)

The SR 69 Corridor Profile Study (CPS) assessed SR 69, Fain Road, SR 89A and SR 89 routes across the CYMPO region. The study examined key performance measures related to the corridor and identified the comprehensive corridor needs and recommended strategic improvements to holistically improve performance. The following project recommendations were made from the CPS study:

- SR 69 Raised Median (MP 294.75 - MP 296)
- Robert Road Intersection Improvements
- Fain Road Safety Improvements
- SR 69 Widening (MP 290.5 - MP 294.75)
- SR 69 Widening (MP 287 - MP 289.75)
- SR 89 Forest Area Safety Improvements (MP 350.5 - MP 352.5)
- SR 89 North of Poland Junction Area Safety Improvements (MP 275 - MP 277.25)
- SR 89 Del Rio Safety Improvements (MP 333.4 - MP 335.9)
- SR 89/Bramble Drive Roundabout
- SR 89 Safety Improvements (MP 327 - MP 329)
- SR 89/Central Avenue Safety Improvements


### 2.1.10 Yavapai County Williamson Valley Road Traffic Study

The Williamson Valley Road Traffic Study assessed 11 miles of Williamson Valley Road between Pioneer Parkway and Nancy Drive. The study's primary objectives were to assess existing and future traffic conditions and identify potential for safety and operational spot improvements. 17 projects were recommended across a short-, mid- or long-term implementation schedule.

## Short-Term

- Outer Loop Road (Modern Roundabout)
- Buena Vista Trail/Longview Drive Two-Way Left-Turn Lane \& Intersection Improvements
- Rainmaker/Single Tree Street Two-Way Left-Turn Lane \& Intersection Improvements


## Mid-Term

- Cliff Rose Road/Pemberton Drive Realignment, Left-Turn Lanes \& Intersection Improvements
- Kelly Drive/Stringfield Drive/Oneal Road Two-Way Left-Turn Lane \& Intersection Improvements
- Silver Juniper Ranch Road/Lariat Lane/Levie Lane Two-Way Left-Turn Lane \& Intersection Improvements
- Blackjack Ridge Road Turn Lanes
- McIntosh Drive to Merrill Drive Two-Way Left-Turn Lane
- Granite Oaks Drive/Trailhead Two-Way Left-Turn Lane


## Long-Term

- Buchanan Drive Left-Turn Lane
- Glenshandra Drive Extend Right-Turn Lane
- Cielo Grande/Dome Road Left-Turn Lane \& Intersection Improvements
- Stazenski Road/Williamson Valley Ranch Road
- Bard Ranch Road Turn Lanes Turn Lanes
- Granite Park Drive Intersection Reconstruction
- Sharps Road Left-Turn Lane
- American Ranch Road Extend Left-Turn Lane


### 2.2 CYMPO Community Profile

### 2.2.1 Land Ownership

The land ownership of the CYMPO region has remained relatively unchanged from previously conducted regional planning efforts. Approximately $71 \%$ of the CYMPO region is under private ownership and approximately $27 \%$ owned as part of State Trust Land. The remaining two percent of land is owned by, in descending order of magnitude, Prescott National Forest, Bureau of Land Management, Yavapai Prescott Indian Reservation, Arizona Game and Fish, Yavapai County and United States Department of Veterans Affairs. The checkerboard pattern of ownership between private and state trust land is a notable characteristic of the CYMPO region, primarily occurring around the denser development areas of the regional municipalities. Refer to Figure 3 for a visual representation of the CYMPO region's land ownership.

### 2.2.2 Zoning

In addition to land ownership, the current zoning of the CYMPO region was compiled and assessed from each jurisdiction. Each agency's most recently updated zoning maps were used to represent the current zoning designations. Given differences in specific zoning categorizations between jurisdictions, specific categories were combined in the following general zoning categories:

- Single-Family Residential
- Multi-Family Residential
- Commercial
- Open Space/Public Space/Recreation
- Industrial
- Agriculture
- Planned Development
- Parking

Single-family residential zoning is the most notable zoning category across the region. The greatest variation in zoning occurs in proximity to the State Route (SR) 69 as well as the central cores of both City of Prescott and Town of Prescott Valley. Beyond large swatches of single-family residential zoning regions throughout the CYMPO boundary, the following locations have significant areas of uninterrupted zoning:

- 35 square miles designated as a future growth area, encompassing the eastern portion of the Town of Chino Valley
- 5 square miles of commercial/multi-family residential use aligning SR 89 through entirety of Chino Valley
- 2.5 square miles of industrial use around the Prescott Regional Airport
- 1 square mile of natural open space, representing the Granite Dells along SR 89
- 1 square mile of industrial use adjacent to the southern portion of SR 89

Refer to Figure 4 for a visual representation of the CYMPO region's zoning.

### 2.2.3 Population \& Dwelling Units

The CYMPO region has underwent steady population growth as estimated by the U.S. Census American Community Survey (ACS). The Town of Prescott Valley has undergone the greatest population growth since the 2010 Decennial Census count, with an estimated $8.2 \%$ population increase between 2010 and 2017. This increase is consistent with the occurrence of numerous community development activities
occurring within the town, increasing both its housing base and population. Due to this increased development activity, the Town of Prescott Valley is estimated to have overcome the City of Prescott as the most populated municipality within the CYMPO region. Refer to Table 1 for a summary of the CYMPO region's population trends.

Table 1 - Population Summary

| Jurisdiction | 2010* | 2013 | 2014 | 2015 | 2016 | 2017 | 20102017 Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dewey-Humboldt | 3,894 | 3,914 | 3,913 | 3,928 | 3,965 | 3,993 | 2.5\% |
| Chino Valley | 10,817 | 10,832 | 10,879 | 10,961 | 11,015 | 11,155 | 3.1\% |
| Prescott Valley | 38,822 | 38,978 | 39,575 | 40,258 | 41,070 | 41,995 | 8.2\% |
| Prescott | 39,843 | 40,003 | 40,130 | 40,700 | 41,090 | 41,468 | 4.1\% |
| Unincorporated Yavapai County (within CYMPO) | 37,613 | 38,532 | 37,877 | 38,451 | 39,312 | 39,781 | 5.8\% |
| CYMPO Region | 130,989 | 132,259 | 132,374 | 134,298 | 136,452 | 138,392 | 5.7\% |

2013 - 2017 U.S. Census American Community Survey (ACS)
*2010 Decennial U.S. Census
Along with the increases to population, the regional dwelling units have increased similarly. The greatest increase in dwelling units has occurred within the Town of Prescott Valley, matching the population growth. The proportional growth patterns in dwelling units and population in much of the CYMPO region indicates a uniform trend between new housing development growth and occupancy. However, the City of Prescott is experiencing disproportional population and dwelling unit growth, indicating that the new residents are occupying the existing housing stock at a greater rate than for new housing development. Refer to Table $\mathbf{2}$ for a summary of the CYMPO region's dwelling unit trends.

Table 2 - Dwelling Unit Summary

| Jurisdiction | 2010* | 2013 | 2014 | 2015 | 2016 | 2017 | 2010- <br> 2017 <br> Growth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dewey-Humboldt | 1,888 | 1,992 | 1,920 | 1,958 | 2,033 | , | 7.7\% ${ }^{\text {n }}$ |
| Chino Valley | 4,967 | 5,243 | 5,163 | 5,043 | 5,121 | ${ }^{\wedge}$ | 3.1\%* |
| Prescott Valley | 17,494 | 16,908 | 17,461 | 17,417 | 18,574 | 19,072 | 9.0\% |
| Prescott | 22,159 | 22,011 | 22,117 | 22,279 | 22,417 | , | 1.2\% ${ }^{\text { }}$ |
| Unincorporated Yavapai County (within CYMPO) | 20,350 | 21,080 | 21,148 | 21,122 | 21,171 | 21,717 | 6.7\% |
| CYMPO Region | 66,858 | 67,234 | 67,809 | 67,819 | 69,316 | 69,552 | 4.0\% |

2013 - 2017 U.S. Census American Community Survey (ACS)
*2010 Decennial U.S. Census
${ }^{\wedge}$ Data values showed inconsistencies and therefore omitted
${ }^{11}$ Due to data inconsistencies, 2010-2016 Growth values were tabulated

Figure 3 - CYMPO Land Ownership


Figure 4 - CYMPO Zoning


### 2.2.4 Commuting Patterns

The CYMPO region is a heavily vehicle dependent community, with most trips being taken by either car or truck, very similar to all of Yavapai County. The best indicator of trip type is measured by individuals' choice in commute mode. Approximately $89 \%$ of all commutes originating from the CYMPO region are taken by vehicle, as either a single-occupancy vehicle (SOV) or carpool trips. Furthermore, an overwhelming majority of all commute trips, $76.8 \%$, were SOV trips. Refer to Table 3 for the full commute mode summary and Figure 5 for a visual representation of SOV Commuter concentrations across the CYMPO region.

Table 3 - Commute Mode Summary

|  | Total <br> Commuters | \% <br> SOV | \% <br> Carpool | \% <br> Bicycle | \% <br> Walking | \% Work <br> from Home | \% Other |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| CYMPO | 51,126 | $76.8 \%$ | $11.8 \%$ | $0.9 \%$ | $2.7 \%$ | $6.5 \%$ | $1.3 \%$ |
| Yavapai County | 81,737 | $75.2 \%$ | $11.9 \%$ | $0.9 \%$ | $3.1 \%$ | $7.3 \%$ | $1.6 \%$ |

2013 - 2017 U.S. Census American Community Survey (ACS)
In addition to the modes used to commute within the CYMPO region, commute times were assessed. Despite the continued regional development and population growth across the CYMPO region, commuters are still experiencing relatively low commute durations, with approximately $35 \%$ of CYMPO commutes taking no longer than 30 minutes unidirectional, very similar to all of Yavapai County. It is also important to note the CYMPO region is in relative proximity to both the Flagstaff and Phoenix Metropolitan areas, which serve as major employment centers. These longer, inter-regional commutes are likely to account for a majority of the longer commute lengths exceeding 60 minutes. Refer to Table 4 for the full commute duration summary and Figure 6 through Figure 8 for visual representations of commuter durations originating within the CYMPO region.

Table 4 - Commute Duration Summary

|  | Total <br> Commuters | $\%<15$ <br> Minutes | \% 15-29 <br> Minutes | $\%$ 30 - 60 <br> Minutes | \% 60+ <br> Minutes |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CYMPO | 47,820 | $34.35 \%$ | $40.77 \%$ | $19.12 \%$ | $5.76 \%$ |
| Yavapai County | 75,747 | $35.47 \%$ | $37.18 \%$ | $20.52 \%$ | $6.84 \%$ |

2013-2017 U.S. Census American Community Survey (ACS)

### 2.2.5 Title VI \& Environmental Justice

The Title VI of the Civil Rights Act of 1964 provides guidance on identifying populations to prevent the exclusion of persons or populations from participation in, denial to persons or populations the benefits of, or the subjection of persons or populations to discrimination under any program or activity receiving federal financing assistance because of race, color, or national origin. Furthermore, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, reaffirms the principles of Title VI and related statutes.

Figure 5 - Percent SOV Commuters


Figure 6 - Percent Commute Duration < $\mathbf{3 0}$ Minutes


Figure 7 - Percent Commute Duration 30-60 Minutes


Figure 8 - Percent Commute Duration > 60 Minutes


Consideration is given to the minority and low-income populations as stated in the Executive Order as well as elderly, disabled and female-head-of-household populations. The U.S Census Bureau refers to these populations according to the following definitions:

- Disabled - non-institutionalized civilians (people not under formally authorized, supervised care or custody in institutions like hospitals and prisons) who are 5 years of age or older and have reported a long-lasting physical, mental or emotional condition.
- Elderly - individuals 60 years of age or older.
- Low-income - determined by a set of money-income thresholds that varies by family size and composition. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as low-income, or below the poverty level, at the time of the census.
- Minority - anyone who is racially classified as black, Asian American, Native American or Alaskan Native, or Native Hawaiian or Pacific Islander; anyone who self-classifies as "other" race; or anyone classified as Hispanic or Latino, regardless of racial self-affiliation.

In addition to the federally protected populations, as identified in the Title VI of the Civil Rights Act of 1964 and Executive Order 12898, an additional assessment in accordance to the Federal Highway Administration (FHWA) Title VI Program was conducted for populations according to the following definitions:

- Limited English Proficiency (LEP) - any individual that indicate speaking English less than very well.

The 2017 U.S. Census ACS data was used at the block group level, or census tract level where block group data was unavailable, to assess the presence of protected populations as listed above. The CYMPO area data was compared with that of the entire Yavapai County in order to assess whether these protected populations are disproportionately represented in the project area. In accordance to FHWA's environmental justice guidance (FHWA 1988), a specific population is considered concentrated and identifiable if it composes of greater than 50 percent of the total population in the given geographic area. Regardless of the degree of concentration of any specific population, a disproportionately high and negative effort on that population can still exist.

Beyond identifying concentrations exceeding the FHWA guidance (greater than 50 percent), a lesser threshold of concern was identified based upon a comparison to the Yavapai County average. The threshold for each protected population is as follows:

- Disabled population - greater than $18.32 \%$ of population
- Elderly population - greater than $38.52 \%$ of population
- LEP population - greater than $3.56 \%$ of population
- Low-income population - greater than $14.70 \%$ of population
- Minority population - greater than $19.10 \%$ of population

Refer to Figure 9 through Figure 13 for a visual representation of each protected population's concentration and distribution throughout the CYMPO region. Refer to Appendix A for the full breakdown of Environmental Justice and Title VI details at the individual block groups and census-tract level.

Figure 9 - Percent Disabled Population


Figure 10 - Percent Elderly Population


Figure 11 - Percent LEP Population


Figure 12 - Percent Low-Income Population


Figure 13 - Percent Minority Population


### 2.3 Transportation Characteristics

The CYMPO region incorporates a series of different types of roadway facilities, including high-capacity highway corridors, access-controlled freeway routes, regional routes, as well as more locally-oriented travel corridors. Across the CYMPO region, there are vastly changing roadway characteristics and usage intensities. In addition to cataloging basic roadway characteristics of the region, this RTP serves as an opportunity to assess the CYMPO region's roadway assets and system performance.

### 2.4 FHWA Performance Targets

The past two FHWA legislations, Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act have required that agencies move towards the use of a performance-based approach for transportation decision-making. Most specifically, the FAST Act has required that state transportation agencies as well as MPOs adopt performance targets and report progress towards achieving these targets. CYMPO has elected to adopt the ADOT performance targets, as shown in Table 5.

Table 5 - Performance Targets

| Performance Measure | 2-year Target | 4-year Target | 2020 Target* |
| :--- | :---: | :---: | :---: |
| \% of NHS bridges in "Good" condition | $52 \%$ | $52 \%$ | N/A |
| \% of NHS bridges in "Poor" condition | $4 \%$ | $4 \%$ | N/A |
| \% of Non-Interstate NHS pavement in "Good" condition | $31 \%$ | $31 \%$ | N/A |
| \% of Non-Interstate NHS pavement in "Poor" condition | $6 \%$ | $6 \%$ | N/A |
| Non-Interstate NHS Travel Time Reliability Index | $74.9 \%$ | $74.9 \%$ | N/A |
| Total Fatalities | $\leq 4 \%$ increase | $\leq 4 \%$ increase | $\leq 3 \%$ increase |
| Fatality Rate (by 100 million VMT) | $\leq 2 \%$ increase | $\leq 2 \%$ increase | $\leq 2 \%$ increase |
| Total Serious Injuries | $\leq 0 \%$ increase | $\leq 0 \%$ increase | $\geq 3 \%$ decrease |
| Serious Injury Rate (by 100 million VMT) | $\geq 1 \%$ decrease | $\geq 1 \%$ decrease | $\geq 3 \%$ decrease |
| Total Bicycle \& Pedestrian Serious Injuries \& Fatalities | $\leq 2 \%$ increase | $\leq 2 \%$ increase | $\leq 3 \%$ increase |

*On August 31, 2019 ADOT and subsequently CYMPO have elected to revise all safety targets for 2020

### 2.5 Regionally Significant Routes

In order to assess the CYMPO region in greater detail than the traditional approach of assessing the core high-capacity, National Highway System (NHS) system through the CYMPO region (SR 69, Fain Road, SR 89 Alternative (A) and SR 89), a set of Regionally Significant Routes were identified. The Regionally Significant Routes were determined through the following assessment criteria:

- Functional Classification - a regionally significant route needs to meet a minimum threshold of a collector route.
- Route Continuity - a regionally significant route needs to provide longitudinal access to the region. Routes with frequent termini and/or short end-to-end lengths were disqualified from consideration.
- Criteria Access / Destination Points - a regionally significant route needs to provide critical access to one or more regional destinations within the CYMPO region. These destinations include but are not limited to: employment centers, tourist sites, recreational sites, prominent residential locations and commercial activity zones.

Following the identification of Regionally Significant Routes using the assessment criteria, the core Technical Advisory Committee (TAC) was given an opportunity to provide feedback, to ensure that each member agency's regional routes were reflected accordingly.

Following TAC approval, twenty-four individual corridors, totaling approximately 144 miles were selected as a Regionally Significant Route, as shown in Figure 14.

### 2.6 Regionally Significant Route Segmentation

In order to be able to assess each corridor's performance, each route was categorized into segments. The segmentation of each route was determined based upon changes occurring in the route characteristics. Therefore, each segment is a unique length but consistent amongst the segment itself, whereas the route may differ throughout. A segment break was created based on one or more of the following occurrences:

- Urban vs rural facility- a segment break may be given where routes make significant shifts to its cross-section, including major changes to shoulder widths, shifting from a rural (open shoulder) section to an urban (curb-and-gutter) section
- Access management - a segment break may be given where a route experiences significant changes in the frequency of cross-street and/or driveway access points.
- Speed Limit - a segment break may be given where a route experiences a prominent speed limit change.
- Through Lanes - a segment break may be given where a route experiences a change to the number of through lanes.
- Traffic Volume - a segment break may be given where a route experiences a prominent change to the traffic volumes, most often consistent with a major intersection with another regional route.

Through the assessment along each of the twenty-four Regionally Significant Routes, fifty-two individual segments were identified with an average segment length of 2.76 miles. The longest segment, SR 69 between the east CYMPO boundary and 500 feet east of Truwood Drive, extends 8.03 miles which represents the portion of the SR 69 route prior to it shifting towards a significantly more intensive, urbanized use. Conversely, the shortest segment, Sheldon Street between 500 feet east of Alarcon Street to Montezuma Street is just 0.34 miles and represents one of the most compact urbanized route segments, located in the downtown core of the City of Prescott. Refer to Appendix B for a full list of each segment limits.

Figure 14 - Regionally Significant Routes


### 2.7 Existing Roadway System

The existing roadway system serving the CYMPO region contains facilities of varying degrees of classification which connect the communities to each other and to the remainder of the state. Major regional roadways include Interstate (I-) 17, SR 89, SR 69, SR 169 and SR 89A. This section highlights the existing conditions of the regionally significant routes, identifying functional classifications, pavement and bridge conditions, existing traffic volumes and safety concerns.

### 2.7.1 Functional Classification

Roadways are assigned a functional classification in order to differentiate their uses in the regional context as well as pinpoint the required design standards, speed limits and other characteristics of the street. The most regionally significant roadways are given the highest functional classifications while small local roadways are given the lowest. Freeway classification implies an access-managed facility. These facilities are meant for long distance and heavy commuting travel. Arterials typically carry less traffic than freeways but are higher speed roadways meant for commuting and other longer distance regional travel. Collector streets are meant for filtering traffic to and from arterial streets and local roadways are primarily reserved for accessing neighborhoods and residential areas.

The roadway classification map provided in Figure 15 shows the functional classification of the roadways in the CYMPO area. The freeways in the CYMPO region include Fain Road between SR 69 and SR 89A and SR 89A between Fain Road and SR 89. Principal arterials in the area include SR 69 between I-17 and SR 89 and SR 89 from SR 89A through Chino Valley to the north. Both Prescott and Prescott Valley contain a network of minor arterials as well. In Prescott this includes SR 89, from SR 89A to the southern border of the region, Gurley Street, Willow Creek Road, Pioneer Parkway and several others. In Prescott Valley the minor arterials include Glassford Hill Road and portions of Lakeshore Drive. The remainder of the CYMPO network is made up of a network of collector, minor collector and local routes.

Of note are the changes in functional classification compared to classifications in the previous CYMPO Regional Transportation Plan. Roadways that have been reclassified to a higher classification include Lakeshore Drive, Prescott Lakes Parkway and portions of SR 89. Roadways that have been reclassified to a lower classification include portions of SR 89, Iron Springs Road, Williamson Valley Road and Old Black Canyon Highway.

### 2.7.2 Travel Lanes \& Speed Limits

The CYMPO region is composed of a variety of different facility types, cross-sections, and speeds. A majority of routes within the CYMPO region are either two lane or four lane facilities. Notable routes with variable travel lane configurations include SR 69 which shifts between four-lane divided, four-lane undivided, five-lane undivided, six-lane undivided, and six-lane divided. SR 89A shifts from a four-lane divided freeway cross-section to a two-lane undivided facility at Robert Road. Lastly, SR 89 north of SR 89A is undergoing a full transition from a two-lane undivided to a four-lane divided facility.

SR 89A, Fain Road and SR 89 north of Chino Valley are the only high-speed, 65 miles-per-hour (mph), routes within the CYMPO region. A majority of highway and major arterial route vary between 40 - 55 mph posted speeds, whereas the lower classification routes typically have lower posted speed limits.

Figure 15 - Functional Classification


### 2.7.3 Pavement

Pavement quality is a fundamental element of identifying transportation asset condition. Given that pavement deteriorates over time and can be exacerbated by higher traffic volumes, heavier vehicle weights/loads, as well as impacted by external factors such as weather, it is critical to assess the pavement's condition. Pavement condition is assessed as a snapshot in time, at the time of the data collection.

Given that the regionally significant route network extends across ADOT, Yavapai County, City of Prescott and Town of Prescott Valley operated routes the pavement assessment incorporates multiple different pavement rating standards. ADOT collects a series of pavement rating data, including the International Roughness Index (IRI), rutting and cracking percentage. For this pavement assessment, the 2018 collected IRI values were used to determine the pavement quality. Yavapai County utilizes an Overall Condition Index (OCl) to assess the comprehensive quality of pavement. The City of Prescott last conducted an assessment in 2016 using the Pavement Quality Index (PQI) to assess the comprehensive quality of pavement. The Town of Prescott Valley addresses their pavement infrastructure through a pavement maintenance program but does not conduct a measured assessment. Town staff was directly consulted to identify overall pavement condition for the town's applicable routes. The towns of Chino Valley and Dewey-Humboldt do not include additional regionally significant routes outside of an ADOT owned and operated facility and therefore no additional pavement data was collected. In order to standardize the different reporting methodologies, a good, fair and poor range was applied to each standard.

The average pavement assessment displays the pavement quality as a singular bidirectional average of the entire through lane pavement. The pavement condition on the regionally significant routes network is shown in Figure 16.

- Good 132.29 miles
- Fair 13.36 miles
- Poor 0 miles

Although a significant portion of the network has good pavement, with no specific segments with a poor rating, there are multiple locations reflecting good conditions that are approaching fair, fair conditions that are approaching poor and directional hotspots. The following locations indicate hot spot locations with one or both directions of travel reflecting a poor rating for an extended portion of a segment:

- SR 69 MP 279 - MP 280 (eastbound only)
- SR 89A MP 330 - MP 331 (northbound and southbound)

Figure 16 - Pavement Assessment


### 2.7.4 Bridges \& Culverts

ADOT performs all bridge and culvert inspections across the entire state, regardless of route ownership or classification through the Structure Inventory and Appraisal process. Therefore, all bridges and culverts were rated based upon the same rating criteria. As part of the Structure Inventory and Appraisal, each component of a bridge; deck, substructure, superstructure and structural evaluation are given a ranking from zero to nine. For culverts, a specific culvert rating is assessed, also ranked on the same zero to nine scale. A rating of zero indicates a bridge is in Failed Condition, requiring it to be placed out of service and is beyond corrective action. Conversely, a rating of nine indicates Excellent Condition.

There are currently 110 bridges and culverts located throughout the CYMPO region. From that selection, only 67 structures, 34 bridges and 33 culverts, are located on the identified regionally significant routes. In order to assess each segment's bridge performance, a Bridge Index was established for each segment. This index is determined by calculating the weighted average of each bridge's lowest scoring condition rating (deck, substructure, superstructure, bridge evaluation, or culvert) based upon the cumulative deck area. Using this index therefore places increased value to structures with larger deck areas. Each segment was assessed based upon the following Bridge Index criteria:

- Good 6.5 or higher
- Fair between 5 and 6.5
- Poor 5 or lower
- N/A segment contains no bridges or culverts

In addition to the segment level assessment, each individual bridge and culvert were individually assessed to identify bridge and culvert hotspot locations. An individual bridge or culvert was categorized as a hotspot if it met one or more of the following criteria:

- Poor Rating Contains one or more individual ratings of 4 (Poor Condition) or lower
- Fair Ratings Contains two or more individual ratings of 5 (Fair Condition)*
- Age A bridge or culvert is currently exceeding a 50 -year structural life span

[^0]Based upon the hotspot analysis, 15 individual structures were identified as a hotspot, as follows:

- Culverts beyond 50 -year life span:

Government Wash RCB \#4275 (SR 69); Government Draw RCB \#4799, Willow Creek RCB \#6042, Target Range Wsh RCB \#4800, RCB \#4803, \#4804, \#4805, \#4806 (SR 89); Granite Creek RCBC \#10360 (White Spar Road)

- Bridges beyond 50 -year life span:

Paulden ATSF RR UP \#1577 (SR 89), Butte Creek Bridge \#9786 (Gurley Street), Granite Creek Br \#1 \& \#2 \#105/\#106 (White Spar Road), Mint Wash Bridge \#9106 (Williamson Valley Road)*
*Bridge is scheduled as a bridge widening / modernization project by NACOG for FY-20

- Poor Bridge Rating

Willow Creek Bridge \#9108 (Iron Springs Road)*
*Bridge was reconstructed in March 2019
The bridge condition on the regionally significant routes network is shown in Figure 17.

Figure 17 - Bridge Assessment


### 2.7.5 Safety

CYMPO completed a Regional Strategic Transportation Safety Plan (RSTSP) in spring 2018 as a combined effort between the Northern Arizona Council of Governments (NACOG) and Flagstaff Metropolitan Planning Organization (FMPO). A comprehensive safety assessment was conducted through this effort, creating a regional safety profile for the CYMPO region, using 2012-2016 crash data. In order to maintain continuity with this recently completed effort, the same crash data range was used in this RTP Safety Assessment. Furthermore, the safety Crash Analysis Tool (CAT) developed through the RSTSP effort was used to identify details.

## Segment Crash Analysis

The crash analysis was performed for each individual segment across the entire regionally significant route network, identifying crash rates and crash severities at a granular level. Refer to Table 6 through Table 8 to identify the highest crash rate, fatal and incapacitating injury crash rate and highest percentage of fatal and incapacitating injury crashes respectively. Additionally, refer to Figure 18 and Figure 19 for the visual representation of total crash rate and fatal and incapacitating injury crash rate.

Table 6 - Highest Total Crash Rate Locations

| Rank | Route | Limits | Crashes / <br> $\mathbf{1 , 0 0 0 , 0 0 0 ~ V M T ~}$ |
| :---: | :--- | :--- | :--- |
| 1 | Gurley St | Mount Vernon Ave - McCormick St | 17.983 |
| 2 | Montezuma St | Sheldon St - S of Carleton St | 9.989 |
| 3 | Sheldon St | Alarcon St - Montezuma St | 6.608 |
| 4 | Sheldon St | SR 69 / SR 89 - Alarcon St | 6.112 |
| 5 | Robert Rd | SR 69 - N of Lakeshore Dr | 4.846 |
| CYMPO Weighted Average Crashes / Million VMT |  | $\mathbf{1 . 3 0 7}$ |  |

Table 7 - Highest Fatal \& Incapacitating Injury Crash Rate Locations

| Rank | Route | Limits | Fatal Crashes 1,000,000 VMT |
| :---: | :---: | :---: | :---: |
| 1 | Gurley St | Mount Vernon Ave - McCormick St | 0.443 |
| 2 | Sheldon St | SR 69 / SR 89 - E of Alarcon St | 0.269 |
| 3 | Senator Hwy | Mount Vernon Ave - South CYMPO Boundary | 0.195 |
| 4 | SR 89A | Robert Rd - East CYMPO Boundary | 0.170 |
| 5 | Willow Lake Rd | SR 89 - Willow Creek Rd | 0.166 |
| CYMPO Weighted Average Fatal \& Incapacitating Injury Crashes / Million VMT |  |  | 0.052 |

Table 8 - Highest Percentage of Fatal \& Incapacitating Injury Crashes

| Rank | Route | Limits |  <br> Incapacitating <br> Injury Crashes |
| :---: | :--- | :--- | :---: |
| 1 | Outer Loop Rd | Reed Rd - Williamson Valley Rd | $25 \%$ |
| 2 | Fain Rd | SR 69 - SR 89A / Robert Rd | $20 \%$ |
| 3 | SR 89A | Robert Rd - East CYMPO Boundary | $15 \%$ |
| 4 | Prescott Lakes <br> Pkwy | SR 89 - Willow Lake Rd | $13 \%$ |
| 5 | Senator Hwy | Mount Vernon Ave - South CYMPO Boundary | $11 \%$ |
| CYMPO Average Percent Fatal \& Incapacitating Injury Occurrence |  | $4 \%$ |  |

## Intersection Crash Analysis

In addition to the segment crash analysis, high use intersections along the regionally significant route network were assessed. These intersections included unsignalized intersections, signalized intersections and roundabout locations. Intersection crashes were determined as any crash occurring within a 250-foot radius of the intersection center point. Intersection hotspots were established based upon both crash total frequency and severity of crashes. The hotspot categorization and criteria are as follows:

## Minor Hotspot

- > 50 total crashes or
- $\quad>25$ total crashes and 1 fatal or incapacitating injury crash or
- < 25 total crashes and $>1$ combined fatal and incapacitating injury crashes


## Moderate Hotspot

- $>50$ total crashes and 1 fatal or incapacitating injury crash or
- $\quad>25$ total crashes and $>1$ combined fatal and incapacitating injury crashes


## Major Hotspot

- Includes $>1$ fatal crash or
- $>50$ total crashes and $>1$ combined fatal and incapacitating injury crashes

All other intersections not fitting any of these criteria were determined as regularly operating intersections and were not identified as a hotspot. Refer to Table 9 to identify the major and moderate intersection hotspots and associated occurrence of fatal and incapacitating injury crashes respectively. For a full analysis of the intersection hotspot analysis, reference Appendix C.

Table 9 - Intersection Safety Hotspots

| Major Hotspots |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Rank | Total <br> Crashes | Fatal <br> Crashes | Incapacitating <br> Injury Crashes |  |
| 1 | SR 89A / Robert Rd | 19 | 3 | 0 |
| 2 | SR 69 / Fain Rd | 56 | 2 | 1 |
| 3 | SR 69 / Glassford Hill Rd | 105 | 0 | 2 |
| 4 | SR 89 / Outer Loop Rd | 59 | 0 | 2 |
| 5 | SR 89 / SR 89A | 56 | 0 | 2 |
| Moderate Hotspots |  |  |  |  |
| Rank | Total <br> Crashes | Fatal <br> Crashes | Incapacitating <br> Injury Crashes |  |
| 6 | Intersection | 42 | 1 | 2 |
| 7 | Willow Creek Rt / Sheldon St Willow Lake Rd | 48 | 0 | 2 |
| 8 | SR 69 / SR 169 | 47 | 0 | 2 |
| 9 | SR 69 / Navajo Dr | 36 | 0 | 2 |
| 10 | SR 89 / Road 2 South | 26 | 0 | 2 |
| 11 | SR 69 / Prescott Lakes Pwky | 89 | 0 | 1 |
| 12 | SR 89 / Road 2 North | 63 | 0 | 1 |

Figure 18 - Five-Year Total Crash Rate


Figure 19 - Five-Year Fatal \& Incapacitating Injury Crash Rate


### 2.7.6 Corridor Reliability

In addition to conducting a travel demand model to assess the existing mobility traffic conditions of the region, traffic reliability values were identified for the region's NHS routes (limited routes due to data availability). Reliability was assessed by the calculation of both the Travel Time Index (TTI) and Planning Time Index (PTI) from the collection of speed data collected and available through ADOT's contract with INRIX data.

The TTI represents the ratio of a corridor's experienced travel time to the free-flow travel time. For this assessment, the TTI was determined as the worst, AM or PM, peak period, representing the poorest recurring travel delay periods. The PTI represents the ratio of a corridor's $95^{\text {th }}$ percentile travel time to the free-flow travel time. For this assessment, the PTI was determined as the worst, AM or PM, peak period, representing the poorest non-recurring travel delay periods.

Reliability values are determined by a relationship of vehicle speeds to free-flow conditions. In addition to traffic congestion, the presence of corridor traffic signals and other speed interruptions may impact the output values. Due to the segmentation of each route assessed, most segments in this analysis were categorized as interrupted corridors. Given the grade-separated intersections, segment SR 89A-1 operates as an uninterrupted facility. The thresholds, as shown in Table 10, were established to categorize each segment into good, fair or poor performance.

Table 10 - TTI \& PTI Thresholds

|  | Uninterrupted |  | Interrupted |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Travel Time <br> Index | Planning <br> Time Index | Travel Time <br> Index | Planning <br> Time Index |
| Good | $\leq 1.15$ | $\leq 1.3$ | $\leq 1.3$ | $\leq 3.0$ |
| Fair | $1.15-1.33$ | $1.3-2.0$ | $1.3-2.0$ | $3.0-6.0$ |
| Poor | $>1.33$ | $>1.5$ | $>2.0$ | $>6.0$ |

Due to the limited availability of accessible data, reliability values were established for 20 of the 52 regionally significant corridors. Refer to Table 11 to identify the TTI and PTI reliability values.

Table 11 - Corridor Reliability

| Route | Segment | TTI (NB) |  | TTI (SB) |  | PTI (NB) |  | PTI (SB) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fain Rd | 1 | 1.10 | Good | 1.11 | Good | 1.24 | Good | 1.28 | Good |
| Montezuma St ${ }^{\text {\# }}$ | 1 | 1.55 | Fair | 1.36 | Fair | 2.60 | Good | 2.00 | Good |
|  | 2 | 1.33 | Fair | 1.32 | Fair | 2.12 | Good | 1.95 | Good |
|  | 3 | 1.29 | Good | 1.29 | Good | 2.18 | Good | 1.91 | Good |
| Sheldon St ${ }^{\text {\# }}$ | 1 | 1.39 | Fair | 1.53 | Fair | 2.17 | Good | 2.49 | Good |
|  | 2 | 1.04 | Good | 1.06 | Good | 1.13 | Good | 1.22 | Good |
| SR 69 | 1 | 1.03 | Good | 1.03 | Good | 1.18 | Good | 1.16 | Good |
|  | 2 | 1.30 | Good | 1.12 | Good | 1.64 | Good | 1.47 | Good |
|  | 3 | 1.41 | Fair | 1.23 | Good | 1.87 | Good | 1.64 | Good |
|  | 4 | 1.41 | Fair | 1.23 | Good | 1.87 | Good | 1.64 | Good |
|  | 5 | 1.38 | Fair | 1.10 | Good | 2.01 | Good | 1.33 | Good |
|  | 6 | 1.24 | Good | 1.19 | Good | 1.61 | Good | 1.61 | Good |
| SR 89 | 1 | 1.07 | Good | 1.02 | Good | 1.46 | Good | 1.19 | Good |
|  | 2 | 1.09 | Good | 1.07 | Good | 1.40 | Good | 1.38 | Good |
|  | 3 | 1.07 | Good | 1.06 | Good | 1.33 | Good | 1.41 | Good |

Table 11 - Corridor Reliability (cont'd)

| Route | Segment | TTI (NB) |  | TTI (SB) |  | PTI (NB) |  | PTI (SB) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SR 89 | 4 | 1.09 | Good | 1.04 | Good | 1.33 | Good | 1.27 | Good |
|  | 5 | 1.02 | Good | 1.03 | Good | 1.09 | Good | 1.09 | Good |
| SR 89A | 1 | 1.12 | Good | 1.10 | Good | 1.23 | Good | 1.25 | Good |
|  | 2 | 1.04 | Good | 1.06 | Good | 1.11 | Good | 1.13 | Good |
| White Spar Rd" | 1 | 1.10 | Good | 1.13 | Good | 1.59 | Good | 1.46 | Good |

*Corridor Reliability values are determined based on data collected between Jan. 1, 2018 - Jan. 1, 2019 \#Montezuma St, Sheldon St and White Spar Rd are considered part of the NB/SB SR 89 route through the City of Prescott.

### 2.7.7 Travel Demand Modeling

For the 2040 CYMPO RTP, ADOT's Arizona Statewide Travel Demand Model Version 2 (AZTDM2) was utilized to develop a CYMPO subarea model that nests within the overall statewide model. As part of the 2045 RTP update, a CYMPO focused standalone travel demand model was developed to better reflect and replicate localized travel patterns, provide more flexibility during alternative analysis and significantly reduce model run times. The standalone model encompasses the greater CYMPO area including the communities of Prescott, Prescott Valley, Chino Valley, Dewey-Humboldt, Yavapai-Prescott Nation and portions of unincorporated Yavapai County. The model was developed using the TransCAD software platform.

Leveraging previous RTP modeling efforts, the standalone model derives its primary inputs such as the Traffic Analysis Zone (TAZ) structure, model network and other parameters from the previous AZTDM2 focus model. The model network and TAZs that encompass the CYMPO area were extracted from AZTDM2 and were then updated to reflect current conditions.

## 2018 Street Network

All information obtained and described in the previous section contributed to the development of a base 2018 street network to serve as the base network for the CYMPO travel demand model., as illustrated in Figure 15.

## TAZ Boundary System

TAZs are used to divide large regions, such as the entire CYMPO region, into smaller geographies to group socioeconomic data particularly for use of traffic modeling purposes. TAZs help distribute people, households and employees into appropriate areas within the study boundary to represent where concentrations are expected to occur, based on known land use plans and real-world conditions. TAZ boundaries often, but not always, align with major streets, physical boundaries, such as municipal boundaries, waterways or political boundaries. The CYMPO TAZ boundaries extend beyond the CYMPO planning area and include the larger CYMPO Influence area in order to account for future growth areas and the travel demand effects in this area as well.

No changes were made to the TAZ structure used in the 2040 RTP Update. Figure 20 shows the TAZ structure for the CYMPO. The model consists of 339 total TAZs - 309 internal TAZs, 10 external zones and 20 built-in extra TAZs for future use if needed

Appendix D provides a detailed documentation of the model development process, inputs, outputs and validation processes and statistics.

### 2.7.9 Network Analysis

No-Build models were developed based on information gleaned from each member agency's Capital Improvement Program (CIP), where available, and input from CYMPO Technical Advisory Committee (TAC) member agencies. The No-Build models include projects that are currently budgeted in the CIPs or Transportation Improvement Programs (TIPs) of Chino Valley, Dewey-Humboldt, Prescott, Prescott Valley, Yavapai County, CYMPO and/or ADOT or have been recently constructed since 2018.

## Network Analysis Procedures

Model validation efforts for the CYMPO region consisted of several steps, including a cordon line analysis (which examines the total number of vehicles entering or exiting the region), a screenline analysis (which examines the number of vehicles passing through specific strategically identified points on the network) and a comparison of daily traffic volumes for different functional classes and categories of roadways. The validation procedures ensured that the model reproduced the existing network conditions with sufficient accuracy and can be used to estimate conditions of the future roadway network with a reasonable level of confidence.

LOS analysis was used to assess the general state of traffic operating conditions on the roadway system of the validated existing model and future roadway network models. The concept of LOS uses qualitative measures that characterize operational conditions within a stream of traffic. The descriptions of individual levels-of-service characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience. Six levels of service are defined. They are given letter designations from " A " to " F ," with " A " representing the best operational conditions and LOS " F " representing an over capacity condition with a high degree of congestion. Each LOS represents a range of operating conditions. Table 13 depicts the general operating conditions under each LOS.

LOS for this analysis was assigned according to the volume-to-capacity (V/C) ratio. The capacity of a roadway segment is the designation of how much traffic a roadway segment can carry and is based on the road's functional classification and number of lanes. The V/C ratio is calculated as the 24 -hour total volume on a particular roadway segment, divided by the 24 -hour total capacity on that same segment. Therefore, values approaching one (1.0) represent worse LOS and values greater than 1 represent a severely congested, over-capacity roadway. Table 12 displays the V/C ratio associated with each level of service rating.

Table 12 - Level of Service V/C Ratio Threshold

| Level of Service | V/C Ratio |
| :---: | :---: |
| A-C | $<0.75$ |
| D | $0.75-0.90$ |
| E | $0.90-1.00$ |
| F | $\geq 1.00$ |

Figure 20 - CYMPO TAZ Boundaries


Table 13 - Level of Service Descriptions


### 2.7.10 2018 Traffic Volumes \& Level of Service

The existing traffic volumes and level of serves were calculated through the use of a CYMPO Travel Demand Model using the 2018 street network and most recently accessible traffic volumes derived from various actual traffic counts. The model provides the full network volume coverage. Furthermore, the LOS values were depicted.

The highest volumes were identified along the major highway corridors; SR 69, SR 89A and SR 89 as well as major arterial corridors; Glassford Hill Rd and Willow Creek Rd. The LOS indicates there are several regional routes that are experiencing high levels of congestion. Figure 21 - Figure 25 visually display multiple views of traffic volumes and LOS. Areas of elevated LOS operating at LOS D - F include:

- SR 89 between Willow Creek Rd - Deep Well Ranch Rd
- SR 69 throughout Prescott Valley, Prescott and near Fain Rd
- SR 89 between Road 3N and Road 5N
- Various intersections along Willow Creek Rd
- Small portions of Glassford Hill Rd
- Miller Valley Rd south of Iron Springs Rd

Figure 21-2018 Traffic Volumes \& LOS


Figure 22-2018 Traffic Volumes \& LOS - City of Prescott


Figure 23-2018 Traffic Volumes \& LOS - Town of Prescott Valley


Figure 24-2018 Traffic Volumes \& LOS - Town of Chino Valley


Figure 25-2018 Traffic Volumes \& LOS - Town of Dewey Humboldt


### 2.8 Multimodal Assessment

### 2.8.1 Importance of Multimodal Facilities

While trips taken by walking and bicycling make up a modest share of the total commuting trips in the region (approximately 3.4 percent according to the 2017 American Community Survey), multimodal transportation is an important component to the overall mobility of a community and region. Investments in walking, biking, public transportation and other forms of multimodal infrastructure not only result in a more balanced and accessible transportation network, but aid in alleviating socioeconomic and health disparities, support economic prosperity and help to create a more livable and sustainable community.

## Transportation Choices



Emerging technologies, social trends and travel behaviors are altering how people travel. Several studies have shown that millennials (those born between 1979 and 2001) are driving less, owning fewer cars and/or not getting a driver's license. Furthermore, with over 33 percent of CYMPO residents age 62 and older, multimodal facilities allows aging persons to maintain their independence and to stay active.

Multimodal investments provide numerous economic benefits including lower transportation costs for individuals; savings to public agencies and jurisdictions from less wear and tear on streets; a greater ability for public agencies and jurisdictions to attract new residents and employers; and a potential boost in tourism.

Active Lifestyles and Healthy Communities


Public health officials recognize the connection between mental and physical health and the built environment. Lack of physical activity is associated with increased risk of many health problems, particularly obesity, diabetes and heart disease. Implementing walking and biking facilities creates access to places where residents can be physically active and provides more opportunities for social interaction and community cohesion that have positive impacts for mental health.

By providing facilities for people to walk or bike instead of traveling by

## Environmental

 vehicle, multimodal transportation can help address a number of environmental challenges. Research shows that approximately 60 percent of vehicle pollution happens within the first few minutes. Replacing these short vehicle trips with walking and biking trips can not only reduce car related emissions, but also reduce noise pollution and congestion. Other environmental benefits include energy savings, less water pollution, reduced dependency on fossil fuels and even reduced pressure to develop agricultural and open spaces.
### 2.8.2 Current Multimodal Network

Prior to this study, the CYMPO did not have a complete inventory of sidewalks and bicycle facilities within the planning area. To understand the location and condition of existing multimodal facilities, a comprehensive mapping exercise and inventory was completed. The inventory and data collection process utilized the National Agriculture Imagery Program (NAIP) 2017 aerial imagery and Google Streetview to identify the locations of pedestrian and bicycle facilities. The following section illustrates the results of the inventory.

## Examples of Existing Facility Types

The inventory included collecting the location of the following facility types:


Sidewalks
Designated pedestrian pathway that separates pedestrians from vehicles.


## Signed Bike Route

Low volume or low speed street where bicyclist and vehicles share travel lanes.


Bike Lane
Striped lane with pavement markings that designate an exclusive lane for bicycle use.


Buffered Sidewalks
Pedestrian pathway that provides a landscaped or buffer zone between the sidewalk and vehicles.


## Paved Shoulder

Paved shoulder, 4 foot or greater, on the edge of pavement can be widened and enhanced to allow bicyclists more separation from vehicles.


Shared Use Path
Off-street facility that physically separates pedestrians and bicyclists from motor vehicles. Provides a comfortable experience with few interactions with vehicles.

### 2.8.2.1 Pedestrian Network

Walking is the most common form of transportation, as every trip begins and ends by foot. At some point in the day, everyone is a pedestrian. Pedestrians are highly diverse, ranging from joggers, groups enjoying a leisurely stroll, parents with children, skateboarders, rollerblades, people with pets on a leash and people using mobility aids.

Sidewalks are the backbone of the pedestrian network, as they provide a designated space for people to walk along a roadway. Figure 26 illustrates the location of pedestrian facilities along study roadways. Along study roadways there are over 97 miles of pedestrian facilities including:

- Sidewalks: 80.8 miles
- Shared Use Paths: 16.5 miles

The conditions of sidewalks affect all pedestrians, particularly individuals with disabilities. Sidewalk gaps, uneven surfaces, obstructions, or poor sidewalk conditions create deterrents or barriers to pedestrian travel. CYMPO member agencies have invested significantly in constructed pedestrian facilities. During the inventory, the study team noted that many existing sidewalks had poor surface condition that could be difficult for persons in a wheelchair or pushing a stroller. Additionally, many corridors had small linear gaps or sidewalks on only one side of the roadway, forcing pedestrians to walk in unpaved areas along a roadway shoulder.

### 2.8.2.2 Bicycle Network

Bicycling is an essential component of any transportation system that provides numerous benefits to communities and residents. Despite the region's general dependency to single-occupancy vehicles, the region has a strong and thriving bicycle community of recreational bicyclists that bike primarily for leisure or physical activity. These riders prefer long-distance, continuous routes and often ride on the weekend or early morning hours. To meet the needs of these riders, as well as to provide biking opportunities for commuting or personal purposes (such as shopping), the region is increasingly supporting and investing in bicycle infrastructure.

Figure 27 illustrates the location of bicycle facilities along study roadways. Along study roadways there are approximately 119 centerline miles of bicycle facilities including:

- Bike Routes: 50.5 centerline miles
- Paved Shoulders: 49.5 centerline miles
- Bike Lanes: 18.9 centerline miles


### 2.8.2.3 Trail Network

Due to CYMPO's scenic landscape and location surrounded by the Prescott National Forest, the region is home to numerous motorized and non-motorized trails. When bicycle and pedestrian facilities are connected to recreational areas they act as an extension of the transportation system. Connecting parks and other recreational facilities via bicycle and pedestrian facilities is a way to make parks more accessible and provide a safe and convenient means for residents to explore the recreational system. Figure 27 illustrates the location of trailheads that are located near or adjacent to study corridors.

Figure 26 - Existing Pedestrian Network


Figure 27 - Existing Bicycle Network


### 2.8.3 Multimodal Safety Concerns

Analysis of pedestrian- and bicycle-related crash data provides CYMPO and partner agencies with important safety information to help make informed decisions on safety improvements. Utilizing data from the CYMPO Regional Strategic Transportation Safety Plan, a safety analysis of reported pedestrian- and bicycle-related crashes over a five-year period (January 1, 2012 to December 31, 2016) was conducted. In total there were 125 pedestrian- and bicycle-related crashes that occurred on study roadways (see Table 14). Of these crashes, 58 percent occurred in Prescott and 30 percent in Prescott Valley.

Table 14 - Total Pedestrian and Bicycle Related Crashes

| Jurisdiction | Pedestrian Related | Bicycle Related |
| :--- | :---: | :---: |
| Dewey-Humboldt | 0 | 0 |
| Chino Valley | 5 | 1 |
| Prescott Valley | 16 | 22 |
| Prescott | 31 | 42 |
| Unincorporated Yavapai County (within CYMPO) | 5 | 3 |
| CYMPO Region | 57 | 68 |

ADOT Safety Data Mart (SDM); 2018 CYMPO Regional Strategic Transportation Safety Plan
Figure 28 and Figure 29 illustrate the number and injury severity of pedestrian- and bicycle-related crashes by year, respectively. It's important to note, that according to data provided, the total number of all crashes significantly decreased in 2015 as well. While the total number of pedestrian- and bicyclerelated crashes have declined, the injury severity of crashes has increased. Fatal and serious injury crashes account for nearly 30 percent of all pedestrian related crashes within CYMPO. In 2018, the Governors Highway Safety Association (GHSA) reported that Arizona has the highest rate of pedestrian deaths in the nation. GHSA found that between 2016 and 2017, pedestrian fatalities increased by 11.9 percent (or a rate of 1.61 per 100,000 people) - which is nearly double the national average (0.81).

Figure 28 - Pedestrian-Related Crashes by Year


Figure 29 - Bicycle-Related Crashes by Year


### 2.8.3.1 Crash Location

Figure 31 illustrates the locations of pedestrian- and bicycle- related crashes. As shown in the Figure, fatal crashes primarily occurred in Prescott. The highest number of fatal and serious injury crashes occurred on State Route 89 and State Route 69. Corridors with a significant number of pedestrian- and bicycle-related crashes include:

- Montezuma St
- Gurley St
- State Route 69
- Willow Creek Rd
- Iron Springs Rd
- State Route 89
- Sheldon St

Nearly 63 percent of pedestrian- and bicycle-related crashes occurred at intersections (see Figure 30). Intersection related crashes are typical locations for pedestrian and bicycle crashes. Often referred to as "right hook" and "left hook" crashes, pedestrian- and bicycle-related crashes often occur at intersections when motorists do not see a bicyclist and cross into their path. Bicyclists riding on sidewalks are a common factor in these types of crashes, as motorists may not be expecting for a fast-moving object off the roadway, or trees or parked cars may hide sidewalk views. Intersections
 with a significant number of pedestrian- and bicycle-related crashes include::

- Montezuma St and Willis St
- Sheldon St and Grove Avenue
- Gurley St and Granite St
- Gurley St and McCormick St

Figure 30 - Intersection Relation


Figure 31 - Pedestrian- and Bicycle-Related Crash Locations


### 2.8.3.2 Crashes by Time and Day

As shown in Figure 32, both pedestrian- and bicycle-related crashes decreased during the cold winter months of January and February. The increase of pedestrian-and bicycle-related crashes during mild spring and fall months may be attributed to mild weather conditions that make walking and biking more comfortable, as well as the increase of seasonal visitors that visit the region. Pedestrian-related crashes significantly increase during December, whereas bicycle-related crashes spike in the month of May.

Approximately 35 percent of all pedestrian-related crashes occurred during evening commute times between 4:00 pm to 8:00 pm. Conversely, bicycle-related crashes largely occurred during daytime hours. This could be attributed to bicyclists being equipped with lights or reflective clothing in comparison to a pedestrian that may be hard to see if lighting is scarce. Additionally, given that the majority of crashes occurred Friday to Monday, this may be attributed to recreational bicyclists on a weekend ride.

Figure 32 - Crashes by Time of Year and Day



### 2.8.4 Areas of Demand

Roadways that connect to places where people work, play and live typically generate and attract more multimodal trips. To quantify the potential pedestrian multimodal trips along study corridors, a multimodal demand model was developed that combines the following factors:

## Where People Live (30 points)

- Population
- Households with no vehicles
- Below poverty populations
- Older adults and children


## Where People Work (20 points)

- Total employees


## Where People Learn (20 points)

- Elementary, middle and high schools
- Universities or colleges


## Where People Play (30 points)

- Parks, gardens, recreation centers
- Retail shopping, grocery stores and convenience stores
- Tourist accommodations, restaurants, theaters and sport venues
- Social services (i.e., childcare, job centers, shelters, etc.)
- Other amenities (i.e., libraries, post offices, City buildings, banks, etc.)

The results of the multimodal demand model help identify "hot spots" where the need for multimodal facilities is the greatest. This tool helps to compare roadways in the region; however, it does not provide details such as the presence and width of facilities nor does it provide information on future multimodal demand. As illustrated in Figure 33, the greatest location for multimodal demand includes the downtown areas of Prescott and Prescott Valley. Additionally, the model also illustrates potential demand in Chino Valley and Dewey Humboldt. The level of demand gradually reduces with increased distance from urbanized centers; however, it is important to provide adequate facilities in rural areas.

### 2.8.5 Challenges and Opportunities

Developing a safe and connected regional multimodal network is not without its challenges. Barriers such as heavily traveled roads, high speed limits, mountains and development constraints hinder connections and pose safety issues for crossings. There are, however, numerous opportunities to expand and enhance existing multimodal facilities to create a robust multimodal network.

## Challenges:

- Communities primarily linked by high-speed, high-volume corridors makes it difficult to create a multimodal network that accommodates all ages and abilities.
- Areas of high demand are primarily arterials or highways. Low stress connections to these arterial locations often have physical barriers limiting access.
- The combination of topography, narrow right-of-way and financial constraints makes it difficult to widen roadways or install sidewalks on both sides of the road.
- Scarce funding is often the biggest challenge to expand the multimodal network.

Figure 33 - Multimodal Demand Model


## Opportunities:

- Incorporating sidewalk and bicycle improvements into maintenance and pavement preservation projects.
- Upgrading existing signed bike routes that have an existing roadway width that can accommodate bike lanes.
- In areas where there are no right-of-way concerns, widening existing sidewalks to a 10 -feet shared use path.
- Collaborate with local bike clubs, student clubs and colleges to increase public education and awareness for pedestrian and bicycle safety.
- Collaborate with ADOT's Bicycle and Pedestrian Program to participate in statewide planning projects, update statewide information in regards of bicycle improvements and obtain educational material.
- Build partnerships with businesses connected to bus stops to help support and fund transit amenities, such as shelters or bike racks.
- Encouraging member agencies to change development codes and regulations to encourage and require the construction and maintenance of multimodal facilities.
- Review planned roadway capacity projects to include multimodal facilities.


### 2.8.6 Public Transportation

Public transportation is a key ingredient of desirable, livable cities with vibrant economies. For transit services to be effective, it's critical to develop a walking and biking network that connects to routes and stops, because almost every trip begins or ends with walking and/or biking. Often people who could potentially utilize transit choose to drive because no transit stops are conveniently located near their starting points or final destinations. Placing walking and biking facilities along "first and last mile" paths expands a person's transportation choices by making transit more accessible.

Currently, public transportation services are limited within the CYMPO region. Existing transit providers in the CYMPO region include:

- Yavapai Regional Transit operates local fixed route service in Chino Valley three days a week with limited regional service offered to Prescott and Prescott Valley.
- Prescott Dial-a-Ride provides on-demand transportation services for the general public, nonemergency medical needs, seniors and for the disabled.
- Numerous human services agencies operate specialized transportation services for clientele or specialized population groups.

At the time of publication, CYMPO is currently in the process of completing a Transit Implementation Plan to guide the development of transit services in the region. Upon completion of the Transit Implementation Plan and RTP, CYMPO can utilize both documents to ensure that recommended multimodal improvements enable residents and visitors to access recommended transit stops.

## 3 Future Regional Conditions

### 3.1 Future Socioeconomic Conditions

The Arizona governor's executive order number 2011-04 dictates the development of future population forecasts that are to be used by all government entities for planning purposes. The executive order establishes that there will be a single set of official population projections developed by the Arizona Department of Administration (ADOA) State Demographer's Office. These projections are developed using a methodology dictated by the Council for Technical Solutions - a technical council that includes expert demographers as well as representatives from state universities, regional councils and state agencies. The executive order dictates that official population projections are developed at the level of the state, each county, each incorporated jurisdiction and the unincorporated portions of each county. The State Demographer's Office does not develop socioeconomic projections at the individual TAZ level. The ADOT statewide model provides the TAZ-level distribution of future socioeconomic data for the CYMPO region based upon the county and jurisdiction level population projections.

Two alternative sets of socioeconomic projections were established in the analysis of future conditions: one which conforms to the population projections provided by the state demographer's office and one which projects the population based on the planned and approved housing and commercial developments as described by each jurisdiction in CYMPO. These two sets of socioeconomic data are referred to as the "conforming" and "non-conforming" data sets, respectively. The conforming data set will be used to update the statewide model and any other official uses. The non-conforming data set, however, presents a more conservative approach and understanding of the potential mobility and operational conditions in the horizon year.

To construct the conforming socioeconomic projections, population and employment of each TAZ was grown proportionately to existing population and employment levels and then manually adjusted to reflect the future planned residential, commercial and other employment developments in the area. The projections were compared to the General Plan of each jurisdiction, underway and known future land developments were referenced and final collaboration was conducted with member jurisdictions to ensure that projections accurately reflected the anticipated growth in the CYMPO region. Those TAZ's which do not currently have a high population but are known to contain planned and approved developments were adjusted manually to reflect appropriate growth while maintaining conformity to the state projections.

To construct the non-conforming socioeconomic projections, the conforming dataset served as a base. Additional dwelling units were then added to the appropriate TAZ's to reflect the planned number of dwelling units in each planned and approved housing development, even if this addition raised the population beyond the conforming projection.

### 3.1.1 Future 2045 Population Growth Areas

The future projections used for 2045 population density distribution by TAZ are displayed in Figure 34. As described, population projections were validated with member jurisdictions to account for any recent major land use changes and development activity that may impact future population allocations not currently reflected in the Arizona State Demographers published projections.

Table 15 presents the conforming projected population growth to 2045 by each CYMPO jurisdiction conforming to the state projections. The total CYMPO regional population is estimated to grow by more than 55,000 individuals between 2018 and 2045, a 37\% increase. While Prescott and Prescott Valley have similar current populations, Prescott Valley is projected to experience much greater population growth, 56\% (Prescott Valley) compared to 6\% (Prescott) respectively.

Table 15 - Projected Population (Conforming)

|  | 2018 <br> Household <br> Population | 2045 <br> Household <br> Population | 2018 <br> Population | 2045 <br> Population | Increase |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Jurisdiction | 42,469 | 45,126 | 44,373 | 47,030 | $+2,657$ |
| City of Prescott | 42,326 | 66,292 | 42,535 | 66,501 | $+23,966$ |
| Prescott Valley | 4,123 | 5,202 | 4,137 | 5,216 | $+1,079$ |
| Dewey Humboldt | 11,844 | 16,810 | 11,866 | 16,832 | $+4,966$ |
| Chino Valley |  |  |  |  |  |
| Unincorporated <br> Yavapai County <br> (within CYMPO) | 45,633 | 68,726 | 45,858 | 68,951 | $+23,093$ |
| Yavapai County Total | 228,964 | 316,363 | 232,489 | 319,888 | $+87,399$ |
| CYMPO Total | 146,395 | 202,156 | 148,769 | 204,530 | $+55,761$ |

While the conforming population projections reflect an increase of 2,657 residents to the City of Prescott, planned and approved housing developments in the City would suggest a greater population increase, which is reflected in the non-conforming socioeconomic analysis. The non-conforming dataset places the number of additional dwelling units in each TAZ which are anticipated through construction activity regardless of the state demographer's population growth cap. Table 16 and Table 17 presents the nonconforming projected population growth and provide a description of the residential developments that were considered in this dataset. In addition to these very specific growth locations, Prescott Valley population is expected to grow north of SR 89A in the Coyote Springs area and population outside of the incorporated areas is expected to grow in the Williamson area west of Chino Valley and in the Coyote Springs area north of Prescott Valley.

Table 16 - Projected Population (Non-Conforming)

|  | 2018 <br> Household <br> Population <br> Jurisdiction | 2045 <br> Household <br> Population | 2018 <br> Population | 2045 <br> Population | Increase |
| :--- | :---: | :---: | :---: | :---: | :---: |
| City of Prescott | 42,469 | 64,438 | 44,373 | 66,342 | $+21,969$ |
| Prescott Valley | 42,326 | 72,795 | 42,535 | 73,004 | $+30,469$ |
| Dewey Humboldt | 4,123 | 5,202 | 4,137 | 5,216 | $+1,079$ |
| Chino Valley | 11,844 | 16,810 | 11,866 | 16,832 | $+4,966$ |
| Unincorporated <br> Yavapai County <br> (within CYMPO) | 45,633 | 68,726 | 45,858 | 68,951 | $+23,093$ |
| Yavapai County Total | 228,964 | 342,178 | 232,489 | 345,703 | $+113,214$ |
| CYMPO Total | 146,395 | 227,971 | 148,769 | 230,345 | $+81,576$ |

Table 17 - Planning Residential Developments

| Development | Jurisdiction | General Location | Expected 2045 <br> Dwelling Units |
| :---: | :---: | :---: | :---: |
| Jasper Development | Prescott Valley | South of SR 89A, West of Glassford Hill Rd. | 3,587 |
| Deep Well Ranch | Prescott | Northwest of SR 89/SR 89A Interchange | 6,710 |
| Walden Ranch | Prescott | Southeast of SR 89/SR 89A Interchange | 286 |
| Granite Dells Estates | Prescott | South of SR 89A in area of Granite Dells Parkway | 1,399 |
| Deep Well Ranch West | Prescott | North of Pioneer Parkway, east of Williamson Valley Rd | 200 |
| Arizona Eco Development South | Prescott | East of SR 89, north of Watson Lake | 290 |
| Arizona Eco Development North | Prescott | East of the Prescott Regional Airport | 375 |
| Stringfield Ranch | Prescott | West of the Pioneer Parkway and Williamson Valley Intersection | 264 |
| Storm Ranch | Prescott | Southeast of Watson Lake | 227 |

### 3.1.2 Future 2045 Employment Growth Areas

The future projections used for 2045 employment density distribution by TAZ are displayed in Figure 35. Similar to the population projections, the employment figures distributed by TAZ was verified and the employment in each TAZ was adjusted to reflect the areas of future regional growth. The verification included the inclusion of existing underway and future developments and direct input from member jurisdictions.

Table 18 presents the current and projected employment numbers by jurisdiction for 2018 and 2045. The total employment for the region is estimated at approximately 44,500 jobs. Prescott overwhelmingly holds the largest employment base, with approximately $59 \%$ of the CYMPO employment base. However, Prescott Valley is projected to experience significant employment growth and is projected to hold $24 \%$ of the CYMPO employment base to Prescott's declining share of approximately $46 \%$, albeit still adding over 1,500 jobs.

Table 18 - Projected Employment

| Jurisdiction | $\mathbf{2 0 1 8}$ <br> Employment | 2045 <br> Employment | Increase | Employment / <br> Population |
| :--- | :---: | :---: | :---: | :---: |
| City of Prescott | 26,362 | 27,941 | $+1,579$ | 0.59 |
| Prescott Valley | 9,292 | 14,528 | $+5,236$ | 0.22 |
| Dewey Humboldt | 305 | 385 | +80 | 0.07 |
| Chino Valley | 2,341 | 3,321 | +980 | 0.20 |
| Unincorporated <br> Yavapai County <br> (within CYMPO) | 6,194 | 9,313 | $+3,119$ | 0.14 |
| Yavapai County <br> Total | 65,500 | 90,123 | $+24,623$ | 0.28 |
| CYMPO Total | 44,494 | 61,171 | $+16,677$ | 0.30 |

Figure 34-2045 Population Projections


Figure 35-2045 Employment Projections


### 3.2 No-Build Network Traffic Conditions

In order to further examine the transportation needs in the CYMPO region under future conditions, the No-Build network was modeled and the resultant volumes and capacity levels analyzed. The No-Build network includes the existing transportation network as well as all funded projects represented in the Statewide Five-Year Program, CYMPO's MTIP and/or local jurisdiction's TIPs or CIPs. Developing the No-Build network identifies the remaining regional needs that will exist in the future transportation system if no other improvements are programmed. This evaluation includes the use of the projected socioeconomic parameters presented in Section 3.1.

### 3.2.1 No-Build Network Development

In contrast to the existing network, the No-Build network accounts for projects being planned, designed, or constructed in the CYMPO region that are fully funded as opposed to only the previously constructed network. Descriptions of capacity-adding projects included in the No-Build network are provided below, listed in Table 19 and shown in Figure 36. Projects included in the CYMPO MTIP, CIPs, TIPs and planning documents but not fully funded, at the time of this study and evaluation, are not included as part of the No-Build network.

## CYMPO \& ADOT Funded Projects

CYMPO and ADOT are jointly funding the design (currently underway) and construction (programmed for FY 2021) funding for a SR 69 Widening project, which will widen approximately one mile from four lanes to six lanes between Prescott Lakes Parkway and Prescott Canyon Drive within Prescott.

## Town of Prescott Valley \& Yavapai County Funded Projects

The Town of Prescott Valley and Yavapai County are partnering on the delivery of three widening and capacity improvement projects throughout the general Prescott Valley area - Sunset Lane Widening, Glassford Hill Road Free Flow Right-Turn and the Viewpoint Drive Additional Northbound Lane. The Sunset Lane overlay and widening project will conduct a pavement overlay to the existing facility as well as widen Sunset Lane between Prescott East Highway and Pine View Drive from two lanes to three lanes. The Glassford Hill Road free flow right-turn project will add a free-flowing right turn to the existing SR 89A/Glassford Hill Road interchange. This project will improve the right-turning traffic exiting the SR 89A eastbound and traveling southbound on Glassford Hill Road. In addition to the turn movement, an additional receiving lane will be added to Glassford Hill Road for approximately 1,000 feet south of the interchange. The Viewpoint Drive additional northbound lane project will improve the SR 89A/Viewpoint Drive interchange by restriping to add a second northbound travel-lane within the existing curb-to-curb pavement width. Furthermore, it will also widen Viewpoint Drive northbound to Pronghorn Ranch Parkway from one lane to two lanes.

## Town of Prescott Valley Funded Projects

The Town of Prescott Valley is independently programming the construction of the Viewpoint Drive Connector, which will create a new two-lane facility between Manley Drive and Roundup Drive, providing an additional north-south route through the northern-central part of the town. The Town is also funding the Robert Road Widening Project. This project between Tranquil Boulevard and Long Mesa Drive from two lanes to four lanes is anticipated to improve the vehicle congestion along this important north-south route.

Table 19 - Capacity No-Build Improvements

| ID | Project <br> Name | Description | Location* | Document |
| :---: | :---: | :---: | :---: | :---: |
| A | SR 69 <br> Widening | Widen SR 69 from 4 lanes to 6 lanes Limits: Prescott Canyon Dr - Prescott Lakes Pwky | P | FY 2020-2024 CYMPO MTIP ADOT Program |
| B | SR 89 Widening | Widen SR 89 from 2 lanes to 4 lanes Limits: Deep Well Ranch Rd - SR 89A | P | ADOT Program |
| C | Sunset Ln Overlay \& Widening | Widen Sunset Ln from 2 lanes to 3 lanes to include center turn lane, sidewalks and drainage <br> Limits: Prescott East Hwy - Pine View Dr | PV | FY 2020-2024 CYMPO MTIP - <br> Local Jurisdiction / County <br> Partnership Project |
| D | Glassford Hill Rd Free Flow RightTurn | Add free flow right-turn at the EB to SB turning movement at the SR 89A exit ramp and extend an additional SB lane for approximately 1,000 feet <br> Limits: SR 89A / Glassford Hill Rd | PV | FY 2020-2024 CYMPO MTIP Local Jurisdiction / County Partnership Project |
| E | Viewpoint Dr $2^{\text {nd }}$ NB Lane | Restripe Viewpoint Dr through the SR 89A interchange and widen NB Viewpoint Dr north of SR 89A <br> Limits: SR 89A - Pronghorn Ranch Pwky | PV | FY 2020-2024 CYMPO MTIP Local Jurisdiction / County Partnership Project |
| F | Viewpoint Dr Connector | Construct new 2 lane facility Limits: Manley Dr - Roundup Dr | PV | FY 2020-2024 CYMPO MTIP Local Jurisdiction Project |
| G | Robert Rd Widening | Widen Robert Rd from 2 lanes to 4 lanes Limits: Tranquil Blvd - Long Mesa Dr | PV | FY 2020-2024 CYMPO MTIP Local Jurisdiction Project |

* $P=$ Prescott, $P V=$ Prescott Valley

In addition to identifying projects impacting the regional network's roadway capacity, No-Build improvements were identified for other modernization and preservation projects. These projects, while not included in the No-Build model's input, are important to regional traffic, safety and facility preservation. Descriptions of the modernization and preservation projects are provided below, listed in Table 20 and shown in Figure 37. Projects included in the CYMPO MTIP, CIPs, TIPs and planning documents but not fully funded, at the time of this study and evaluation, are not included as part of the No-Build network.

Figure 36 - No-Build Capacity Improvements


Table 20 - Non-Capacity No-Build Improvements

| ID | Project Name | Description | Location* | Document |
| :---: | :---: | :---: | :---: | :---: |
| H | SR 69 / Mendecino Dr Signal | Construct intersection traffic signal Limits: SR 69 / Mendecino Dr | PV | CYMPO MTIP ADOT Program |
| 1 | Williamson Valley Safety Improvements | Implement various safety improvements Limits: Pioneer Pkwy - Talking Rock Ranch Rd | YC | CYMPO MTIP County Project |
| $J$ | SR 89 / Road 1 North Intersection Improvements | Construct traffic signal <br> Limits: SR 89 / Road 1 North | CV | CYMPO MTIP |
| K | Outer Loop Rd Overlay | Limits: Williamson Valley Rd - Road 1 West | YC | CYMPO MTIP County Project |
| L | Coyote Springs Rd Overlay | Limits: Antelope Meadows - N Line S1 T15N R1W | YC | CYMPO MTIP County Project |
| M | SR 89 Pavement Preservation | Pavement surface rehabilitation Limits: COP Limits - Yavpe Connector | YC | CYMPO MTIP |
| N | Rosser St Pavement Reconstruction | Reconstruct pavement <br> Limits: Campbell Ave - Eagle View Dr | P | City of Prescott CIP |
| 0 | Sundog Ranch Rd <br> Pavement <br> Reconstruction | Reconstruct pavement, improve drainage and upsize water main <br> Limits: Prescott Lakes Pkwy - Yavpe Connector | P | City of Prescott CIP |
| P | Robinson Dr Pavement Rehabilitation | Reconstruct pavement, improve drainage and water, sewer and dry utilities and construct sidewalk. <br> Limits: Canyon Dr East - Skyview Dr | P | City of Prescott CIP |
| Q | Viewpoint Dr / Spouse Dr Intersection Improvements | Limits: Viewpoint Dr / Spouse Dr | PV | CYMPO MTIP Local Jurisdiction |
| R | Yuma Dr Overlay | Limits: Road 3 N - Road 5 N | YC | CYMPO MTIP County Project |
| S | Mint Wash Bridge Improvements | Limits: Williamson Valley Rd | YC | CYMPO MTIP County Project |
| T | Prescott East Hwy Overlay | Limits: Copper Hill Rd - Sunset Ln | PV | CYMPO MTIP County Project |
| U | SR 89 at Little Ranch Rd Turn Lane | Construct NB Turn Lane Limits: SR 89 at Little Ranch Rd | CV | Chino Valley Forest Boundary Transportation Study |
| V | Spring Ln Intersection | Install traffic signal | ADOT | ADOT Program |
| W | Ash Creek Bridge | Bridge rehabilitation | ADOT | ADOT Program |
| X | SR 169 TI UP | Bridge rehabilitation | ADOT | ADOT Program |
| Y | Chino Valley - Paulden Pavement Preservation | Minor pavement preservation | ADOT | ADOT Program |
| Z | Coyote Springs Rd SB <br> Right-Turn Lane | Construct right-turn lane at SR 89A | PV/YC | CYMPO MTIP Local <br> Jurisdiction / County Partnership Project |

* CV = Chino Valley, P = Prescott, PV = Prescott Valley, YC = Yavapai County

Figure 37 - No-Build Non-Capacity Improvements


### 3.3 Future Transportation Performance

In addition to assessing the impacts to the transportation system based on the TDM traffic-related outputs, the future conditions were assessed for the CYMPO region's pavement, bridge, safety and multimodal conditions. The existing performance for each of these categories shown in Section 2 was used as the baseline conditions for the future analysis.

### 3.3.1 Pavement

As a regional assessment, the future pavement performance was identified using a broad regional approach. Specific roadway segments were not specifically identified as requiring programmed improvements at specific future time intervals. Instead the expected degradation intervals of pavement facilities were identified for all regionally significant route segment at 2025, 2030 and 2045 intervals.

Degradation interval criteria were established as determined by facility type (highway vs. non-highway) and average traffic volumes. In accordance to ADOT design expectations and standards, an ADOT highway facility's pavement design lifespan is 25 years. Alternatively, literature supports that other, less intensive, lower speed facilities may be designed to a lower design lifespan of approximately 20 years. Therefore, all CYMPO area highway facilities (Fain Rd, SR 69, SR 89, SR 89A and SR 169) were assumed a 25 -year total pavement lifespan. All other regionally significant routes were assumed a 20year total pavement lifespan. Beyond the facility type, the intensity of use along the corridor determines the rate of degradation, with increased load and volume across a roadway implies a quicker deteriorating facility. In addition to the total lifespan, roadways with volumes greater than 10,000 AADT were assigned a steeper degradation rate earlier in the pavement lifespan, whereas roadway segments with volumes less than 10,000 AADT were assigned a shallower degradation rate.

Seven pavement preservation and expansion projects were identified within the FY 2020 CYMPO MTIP and/or the FY 2020 ADOT Five-Year Program. The existing pavement condition of these segments, as identified in the existing pavement performance analysis, were overwritten to reflect a newly paved facility at the indicated programming year, effectively resetting their pavement lifespan. Figure 38-41 summarizes the projected degradation rates across 25 -year intervals, assuming a 20-and 25 -year lifespan for non-highway and highway facilities respectively.

Figure 38 \& 39 - Non-Highway Pavement Degradation Rates



Figure 40 \& 41 - Highway Pavement Degradation Rates



Overall pavement deterioration begins gradually within the first five-year interval, with only a $4 \%$ of total corridor miles beginning categorized as poor performance. However, both the 2030 and 2045 values reflect the importance of continued pavement maintenance and preservation projects as the pavement performance rapidly decreases over time.

As noted in the CYMPO FY 2020 MTIP and respective jurisdictional CIPs, jurisdictional agencies have programmed specific funds towards continued pavement preservation and maintenance efforts. The CYMPO RTP does not serve to supersede individual jurisdictions' existing pavement maintenance and preservation activity funding. Rather, the CYMPO RTP serves to state the importance of continued pavement maintenance and preservation activities from respective CYMPO member agencies.

### 3.3.2 Bridges \& Culverts

Similarly to pavement, bridge and culvert assets have a finite lifespan before deteriorating to requiring repair, partial reconstruction, or new structure replacement. Bridge lifespan is highly fluctuant, depending on usage, environmental conditions and loads amongst additional factors.

In accordance with the ADOT Bridge Practice Guidelines, bridges are designed to maintain structural integrity up to and potentially exceeding 75 years, contingent upon maintenance regularity, patterns and intensities of use and environmental factors events such as freeze-thaw and erosion events.

ADOT provides regular bridge and culvert inspections for all assets both on and off the ADOT maintained network. These cyclical inspections, occurring at two- and five-years frequencies respectively ensure that all bridge ratings are regularly updated to best reflect current conditions. In the event of extraordinary and/or irregularly accelerated deterioration, more frequent inspections or emergency repairs may be conducted.

Given the robust nature of the inspection and subsequent programming of bridge and culverts and provided that this is a regional assessment, a broad approach towards future bridge performance was conducted and therefore specific bridge improvements were not specifically identified as requiring programmed improvements at specific future time intervals. Instead the expected degradation and age of bridge and culvert structures were identified and assessed along each regionally significant route segment identifying the expected poor performance/hotspot frequency at 2025, 2030 and 2045 intervals.

In 2018, the Willow Creek Bridge on Iron Springs Road received a full deck replacement and installation of new traffic-rated rails. Additionally, the Mint Wash on Williamson Valley Rd is programmed to by Yavapai County to be improved in FY 19-20. The existing bridge condition of these bridges, as identified in the existing bridge performance analysis, were overwritten to reflect a newly improved bridge repairs at the indicated programming year, prolonging the structural components of the bridge. Table 21 and Table 22 show the future bridge and culvert performance along CYMPO's regionally significant routes

## Projected 2025 Hotspot

- Currently contains one or more individual ratings of 4 (Poor Condition) or lower,
- Currently contains two or more individual ratings of 5 (Fair Condition) or lower,
- A bridge or culvert is exceeding a 50 -year structural life span in 2025


## Projected 2030 Hotspot

- Currently contains one or more individual ratings of 5 (Poor Condition) or lower,
- A bridge or culvert is exceeding a 50 -year structural life span in 2030


## Projected 2045 Hotspot

- Bridge: Currently contains two or more individual ratings of 6 (Fair Condition) or lower,
- Culvert: Currently contains a culvert rating of 6 (Fair Condition) or lower,
- A bridge or culvert is exceeding a 50 -year structural life span in 2045

Table 21 - Future Bridge Performance

| Need | $\mathbf{2 0 2 5}$ | $\mathbf{2 0 3 0}$ | $\mathbf{2 0 4 5}$ |
| :---: | :---: | :---: | :---: |
| Good or Fair | $27(82 \%)$ | $25(76 \%)$ | $24(73 \%)$ |
| Poor | $6(18 \%)$ | $8(24 \%)$ | $9(27 \%)$ |

Similar to pavement infrastructure, the resulting performance emphasizes the importance of maintaining regular maintenance on bridges; an effort that is being successfully executed. Although the percentage of poor performing facilities increase over time, it is important to note that only 1,3 and 6 bridges at 2025, 2030 and 2045 intervals respectively, were identified as potential hotspot locations due to projected bridge rating declination, whereas the remaining bridges were indicated as potential hotspots due to the structure's age exceed 50 years of service life.

Table 22 - Future Culvert Performance

| Need | $\mathbf{2 0 2 5}$ | $\mathbf{2 0 3 0}$ | $\mathbf{2 0 4 5}$ |
| :---: | :---: | :---: | :---: |
| Good or Fair | $22(67 \%)$ | $22(67 \%)$ | $16(48 \%)$ |
| Poor | $11(33 \%)$ | $11(33 \%)$ | $17(52 \%)$ |

In comparison to the bridge structures, the projected culvert performance is anticipated to be more severe, primarily due to aging infrastructure. In 2045, 4 culverts were identified as potential hotspots due to existing culvert ratings of 6 whereas 11 culverts were identified as potential hotspots due to age.

### 3.3.3 Safety

Safety remains a priority for both existing and future transportation operations. With the focus remaining at the regional level, individual corridor predictive safety analyses were not conducted. However, high total crash rate and high fatal and incapacitating injury crash rate corridor segments and intersections are identified as the highest priority safety locations for now and the future. Elevated crash rate segments and intersection crash clustering, particularly fatal and incapacitating injuries, indicate potentially suitable locations for engineering solutions to address safety concerns.

### 3.3.4 Mobility

2030 and 2045 No-Build traffic models were developed using the socioeconomic analysis as described earlier in this section. Both models represent the project future traffic conditions across the CYMPO region as reflected on the No-Build scenario, which represents current roadway configurations as well as under-development or presently funded improvements. Respectively, 2030 and 2045 No-Build model traffic volume and respective LOS outputs are shown in Figure 42 - Figure 51.

Figure 42-2030 Traffic Volumes \& LOS


Figure 43-2030 Traffic Volumes \& LOS - City of Prescott


Figure 44-2030 Traffic Volumes \& LOS - Town of Prescott Valley


Figure 45 - 2030 Traffic Volumes \& LOS - Town of Chino Valley


Figure 46-2030 Traffic Volumes \& LOS - Town of Dewey Humboldt


Figure 47-2045 Traffic Volumes \& LOS


Figure 48-2045 Traffic Volumes \& LOS - City of Prescott


Figure 49 - 2045 Traffic Volumes \& LOS - Town of Prescott Valley


Figure 50-2045 Traffic Volumes \& LOS - Town of Chino Valley


Figure 51 - 2045 Traffic Volumes \& LOS - Town of Dewey Humboldt


### 3.3.5 Multimodal Solutions

Identification of multimodal transportation potential solutions was the first step in developing the future multimodal transportation network. The solutions identified in this section focus on closing gaps in the regional pedestrian and bicycle network; linking neighborhoods to trails, schools and activity centers; and providing opportunities to improve the overall safety of a corridor. Gaps in the existing multimodal network may be due to many factors, including but not limited to; inconsistent corridor development, physical constraints and right-of-way issues. The region includes many barriers to walking and biking, particularly physical constraints that limit the ability to construct cost-effective infrastructure. However, filling in network gaps at strategic locations potentially links thousands of people to jobs and activity centers and provides choices for convenient travel by foot or bicycle.

### 3.3.5.1 Pedestrian Network

The approach to identifying pedestrian network solutions was to concentrate resources in areas where improvements are most needed and where people are most likely to walk. Proposed pedestrian solutions aim to close sidewalk gaps and provide a safe and comfortable experience for users of all ages and abilities. Combined with the existing pedestrian network, the identified solutions create a more robust, connected and comfortable walking environment. Figure 52 and Table 23 outline identified solutions in the existing pedestrian network. For all identified solutions, an engineering assessment should occur to determine the feasibility of construction.

Table 23 - Pedestrian Network Solutions

| Location | Comments |
| :--- | :--- |
| Bradshaw Dr | Extension of existing pedestrian network |
| Commerce Dr | Connects existing pedestrian network to retail, parks <br> and public buildings |
| Florentine Rd: Navajo Dr to Grizzly Bear Dr | Connects existing pedestrian network to school |
| Florentine Rd: Windsong Dr to Truwood Rd | Fills gaps in existing pedestrian network |
| Glassford Hill Rd: Granville Pkwy to Santa <br> Fe Loop Rd | Connects existing pedestrian network to elementary <br> school |
| Glassford Hill Rd: SR 89A to Florentine Rd | Fills gaps in existing pedestrian network |
| Gurley St: Plaza Dr to Thumb Butte Rd | Extends existing pedestrian network |
| Hassayampa Village Ln | Fills gaps in existing pedestrian network |
| Lakeshore Dr | Fills gaps in existing pedestrian network |
| Larry Caldwell Rd | Connects existing pedestrian network to residential <br> development |
| Long Look Dr: Viewpoint Dr to Windsong Dr | Connects existing pedestrian network to school |
| Manzanita Trail | Connects existing pedestrian network to residential <br> neighborhood and golf course |
| Navajo Dr | Extension of existing pedestrian network |
| Navajo Dr | Fills gaps in existing pedestrian network |

Table 23 - Pedestrian Network Solutions (cont'd)

| Location | Comments |
| :--- | :--- |
| Old Black Canyon Hwy: Overlook Dr to <br> Western Dr | Connects existing pedestrian network to neighborhood |
| Old Chisholm Trail | Connects existing pedestrian network to residential <br> neighborhood and golf course |
| Plaza Dr | Extension of existing pedestrian network |
| Prescott East Hwy: Antelope Ln to SR 69 | Extension of existing pedestrian network |
| Prescott Lakes Pkwy: Willow Lakes Rd to <br> SR 69 | Fills gaps in existing pedestrian network |
| Robinson Dr: E Gurley St to Stetson Rd | Extends existing pedestrian network |
| Skoog Blvd; Civic Dr; Viewpoint Dr | Extension of existing pedestrian network |
| Smoke Tree Ln: Cabaret St to Prescott <br> Lakes Pkwy | Fills gaps in existing pedestrian network |
| SR 169: SR 69 to Foothills Dr | Construct shared use path to trailhead |
| SR 69: Frontier Village Center | Connects existing pedestrian network to retail locations |
| SR 69: Navajo Dr to Truwood Dr | Extension of existing pedestrian network |
| SR 69: Prescott Lakes Pkwy to n Lee Blvd | Fills gaps in existing pedestrian network |
| SR 69: Sundog Ranch Rd to Navajo Dr | Fills gaps in existing pedestrian network |
| SR 69: west of Sundog Ranch Rd | Connects existing pedestrian network to retail locations |
| SR 89: W Rd 3 N to E Perkinsville Rd | Fills gaps in existing pedestrian network |
| Sunset Ln | Extension of existing pedestrian network |
| Turquoise Cir; Old Chisholm Trail | Connects existing pedestrian network to residential <br> neighborhood and golf course |
| Viewpoint Dr: AZ-89A to Horseshoe Ln | Fills gaps of existing pedestrian network |
| Walker Rd | Connects existing pedestrian network to trailhead |
| Watson Lake Park Rd | Extension of pedestrian network |
| Western Way | Connects existing pedestrian network to restaurants <br> and golf course |
| Whipple St | Fills gaps in existing pedestrian network |
| Willow Lake Rd: Willow Creek Rd to <br> Prescott Lakes Pkwy | Fills in gaps in existing pedestrian network |
| Windsong Dr: south of Long Look Dr | Extension of existing pedestrian network |
| Yavapai Rd: Florentine Rd to N Navajo Dr | Extension of existing pedestrian network |
|  |  |

Figure 52 - Pedestrian Network Solutions


### 3.3.5.2 Bicycle Network

A comprehensive bicycle network improves a bicyclists' level of comfort, convenience and access to key destinations. Planning a regional bicycle network enables CYMPO member agencies to prioritize and seek funding to construct bicycle facilities where they will provide the greatest benefit to bicyclists and the community-at-large. Bicycle network solutions were identified to logically connect existing facilities to improve local and regional mobility and to determine potential upgrades to existing facilities to improve the overall safety and comfort of roadways. Figure 53 and Table 24 outline identified solutions in the existing bicycle network. For all identified solutions, an engineering assessment should occur to determine the feasibility of construction.

Table 24 - Bicycle Network Solutions

| Location | Comments |
| :--- | :--- |
| Chino Valley Bike Loop | Install bike lanes or shared use path to create an <br> intercity bike loop that connects schools and <br> residents on Rd 1 West, Rd 2 North, Center St, Rd 1 <br> East and Perkinsville Rd |
| Skoog Blvd: Lakeshore Dr to Long Look Dr | Widen sidewalks to create a shared use path |
| Country Park Dr/Robbie Ln: SyIvan Dr to <br> Willow Creek Rd | Designate as bike route |
| Demerse Ave: South of Rosser St to Willow <br> Creek Rd | Designate as bike route |
| Florentine Rd: Windsong Dr to Truwood Dr | Evaluate potential of on-St bike facilities |
| Glassford Hill: Lakeshore Dr to SR 89A | Install paved shoulders |
| Lakeshore Dr: Navajo Dr to Badger Rd | Widen shoulders or designate as bike route |
| Lone Cactus Dr: Long Look Dr to Manley Dr | Designate as bike route |
| Long Look Dr: Glassford Hill Rd to Loos Rd | Install paved shoulders. Conduct a safety <br> assessment of Long Look Dr and Glassford Hill <br> intersection to determine potential solutions to <br> improve bicycle safety. |
| Manley Dr: Lone Cactus Dr to Ranger Rd | Designate as bike route |
| Manzanita Trl and Old Black Canyon Hwy: <br> West of Prescott Valley Country Club | Designate as bike route |
| Montezuma St: Copper Basin Rd to Carleton <br> St | Restripe roadway to include bike lanes. |
| Old Chisholm Trail: Turquoise Circle to <br> Prescott Country Club Blvd | Designate as bike route |
| Park Avenue: Copper Basin Rd to Gurley St | Restripe roadway to include bike lanes |
| Park View Dr: Viewpoint Dr to Parkview Dr <br> Shared Use Path | Create trail connection to existing shared use path |
| Prescott Citywide Safety Action Plan | Conduct a Pedestrian and Bicycle Safety Action Plan <br> to recommend safety countermeasures <br> (infrastructure and non-infrastructure) and identify <br> potential hot spots for bicycle and pedestrian <br> crashes throughout the City. |

Table 24 - Bicycle Network Solutions (cont'd)

| Location | Comments |
| :--- | :--- |
| Prescott Valley Citywide Safety Action Plan | Conduct a Pedestrian and Bicycle Safety Action Plan <br> to recommend safety countermeasures <br> (infrastructure and non-infrastructure) and identify <br> potential hot spots for bicycle and pedestrian <br> crashes throughout the City. |
| Prescott Country Club Blvd: SR 69 to End | Restripe roadway to include bike lanes |
| Prescott East Hwy: SR 69 to Antelope Ln | Ensure paved shoulders are in good condition to be <br> utilized for bicycle traffic |
| Pronghorn Ranch Pkwy: Viewpoint Dr to <br> Antelope Meadows Dr | Install paved shoulders |
| Rosser St: Willow Creek Dr to Campbell Ave | Restripe roadway to include bike lanes |
| Senator Hwy: existing bike lanes to Hailsey Rd | Designate as bike route |
| Spouse Dr: Glassford Hill to Robert Rd | Designate as a bike route or widen shoulders. <br> Conduct a safety assessment of Spouse Dr and <br> Viewpoint Dr intersection to determine potential <br> solutions to improve bicycle safety. |
| SR 169: SR 69 to Foothills Dr | Construct shared use path to trailhead |
| SR 69: Frontier Village Center | Connects existing pedestrian network to retail <br> locations |
| SR 69: Navajo Dr to Truwood Dr | Extend shared use path |
| SR 69: Prescott to Prescott Valley | Evaluate potential for filling in gaps in the existing <br> shared use paths to provide a regional connection <br> between communities. If shared use path <br> improvements are made, design consideration at <br> intersection should be given to improve pedestrian <br> and bicycle crossings at signalized intersections. |
|  | Evaluate the potential of installing bike lanes or <br> shared use path |
| Designate as bike route |  |
| SR 89: Rd 4 North to Chino Valley limits | Designate as bike route |
| Sunset Ln: Prescott East Hwy to Pine View Dr | Designate as bike route |
| Tonto Way: Loos Rd to Manley Dr | Install paved shoulders or shared use path |
| Truwood Dr: SR 69 to Yavapai Dr | Designate as bike route |
| Viewpoint Dr: Long Look Dr to Manley Dr | Designate as bike route |
| Viewpoint Dr: North of SR 89A | Install paved shoulders |
| Viewpoint Dr: SR 89A to Robert Rd | Install paved shoulders |
| Williamson Valley Rd: Shadow Valley to Iron <br> Springs Rd | Widen sidewalks to create a shared use path |
| Windsong Dr: North of Civic Dr to Long Look <br> Dr | Extend bike lanes |
| Windsong Dr: Good Samaritan Hospital to <br> Lakeshore Dr | Extend shared use path |

Figure 53 - Bicycle Network Solutions


### 3.3.5.3 Maintenance Considerations

In addition to providing new and enhanced facilities, it is imperative that the agencies maintain their pedestrian and bicycle facilities. Bicyclists and pedestrians are vulnerable to pavement/sidewalk irregularities such as cracks, potholes, broken glass, sand, etc. Unmaintained landscaping causes safety issues by obstructing bicycle lanes and sidewalks and blocking visibility. Major storms and motor vehicle crashes can leave debris, presenting hazards to pedestrians and bicyclists, which must be picked up as soon as possible.

Maintenance needs are typically identified through one of three sources: the public reporting a problem, routine inspections, or special inspections after a storm, crash, or construction project. CYMPO member agencies should monitor scheduled maintenance programs to ensure bicycle and pedestrian facility maintenance. Buffered sidewalks and shared use paths often require more frequent and different maintenance practices (depending on the degree and type of physical separation). During the facility design selection phase of project development, maintenance needs and costs should be considered.

Integrating recommended improvements with agencies' pavement management programs is a costeffective strategy for installing on-street bicycle facilities during routine roadway maintenance and resurfacing projects. During roadway restriping and resurfacing, the existing pavement could be striped or additional pavement could be added to accommodate bike lanes and paved shoulders. Another opportunity is for CYMPO member agencies to evaluate their existing bicycle network to determine the potential of upgrading existing bike routes to bike lanes. Many roadways within the study are currently have ample pavement width to accommodate bike lanes and provide a more comfortable riding experience for bicyclists.

### 3.3.5.4 Additional Considerations

In addition to investing in infrastructure improvements, CYMPO member agencies need to take a more indepth review of the pedestrian and bicycle needs of the region, particularly given the high number of pedestrian- and bicycle-related crashes that have occurred. It is recommended the CYMPO member agencies pursue developing their own Active Transportation Plans. An Active Transportation Plan is a comprehensive planning document that provides strategies to improve pedestrian and bicycle connectivity, safety and convenience. Active Transportation Plans typically include a detail inventory of facilities and their conditions, prioritize improvement solutions, determine safety needs and recommend policies and procedures to improve pedestrian and bicycle travel.

## 4 Public Participation

For the first time, CYMPO dedicated public involvement efforts to an online, digital campaign. A digital campaign allows the public to participate when they want to, and from where they want to.

Per the strategic planning within the CYMPO Public Involvement Plan, a thoughtful online engagement campaign was designed to understand the community's perspective of regional transportation for the 2045 RTP update. Opening up digital engagement opportunities in the beginning of a plan update allows for public input to truly shape and drive the plan. This is in contrast to a standard public meeting approach, that can often happen as a study is completing, where residents are provided open-ended comment forms that do not guide a resident as to what feedback is expected. In addition, a public meeting requires additional time commitment from a resident including travel time and time for the duration of the meeting.

By engaging in this new form of public engagement, participation in the RTP 2045 update soared 1,076\% from 120 individual comments received during the 2040 RTP development during two public meetings to 1,411 individual comments collected via online for this 2045 RTP effort as shown in Figure 54. The results of having such a large response is compounding; agencies with jurisdiction over some of the comments received during this effort also received copies of public comments as well as GIS files, helping them to address the issues and providing due diligence to those members of the public who took time to comment.

Figure 54 - RTP Public Participation Comparison


The digital engagement outreach efforts for this RTP were conducted in two phases - Phase 1 allowed participants to identify broader concerns and note preference of corridors (results shown in the following blue-colored tables). Phase 2 requested participants to further narrow their thoughts related to budgeting and wildlife connectivity (results shown in the following orange-colored tables). Digital engagement modules were linked to the homepage of cympo.org. On four different occasions, Facebook boosted posts were used for 7-10 days within a 25 -mile radius of the Yavapai County Courthouse, reaching 27,726 people with 631 link clicks.

In addition, the RTP team attended the Yavapai County Contractors Association's Home and Garden Show at the Toyota Center on May 18, 2019, and the Yavapai College Job Fair on March 17, 2019. The team had iPads and collected input from event attendees.

Please see Appendix F for complete public feedback, including Facebook commentary.

## Drop a Pin module

249 total responses
Participant Instructions
Purpose
Users were instructed to use the interactive map to assign comments to a specific geographic location.
Provide a forum to locate improvements to group clusters for input into the plan. Recurring public comments were taken into consideration in the project identification process

```
Pin Drops
```



- Construct routes between Prescott Valley and Chino Valley
- Include sidewalks on Glassford Hill Road
- Widen Interstate 17
- Provide greater connectivity in/out of Poquito Valley, Pronghorn Ranch and Viewpoint developments
- Improve Robert Road congestion
- Construct Robert Road traffic interchange
- Improve SR 69 signal timing
- Widen SR 69
- Construct SR 69 intersection improvements
- Widen Williamson Valley Road

Appendix F includes full responses.
The geographic information system (GIS) mapping file was provided to each CYMPO member agency to better inform the respective agency of localized public comments and concerns.

## Important Regional Corridors

187 vehicle route total responses 176 bicycle/pedestrian total responses
Users could select up to two important routes for vehicles and two important routes for bicycles and pedestrians. This feedback was garnered for CYMPO to understand specific, regionally-significant routes.
Verify corridor improvements that the public most sees as important.



Most Important
Bicycle/pedestrian
Route Responses
(\% of total responses)

Most Important Vehicle
Route Responses
(\% of total responses)


## Transportation Preferences module



## Changes to Existing Conditions - Q \& A

46 total responses

Participant
Instructions

Purpose

Participants could leave open-ended questions and comments, as well as give an individual "thumbs up" or "thumbs down" to already posted questions/comments
Allow participants to ask questions or provide feedback on topics not covered in other modules. Recurring public comments were taken into consideration in the project identification process.

1. First, thank you for creating this website and for encouraging discussion on topics other than motor vehicles. At least one third of our quad-city residents do not own a car and others cannot afford the cost of driving their car. We need choices. We need streets that invite other modes of transport. I agree with the comments regarding the need for an effective, affordable bus system (daily fixed-route, starting early in the morning and ending after hours) and connecting, high-quality bicycle and pedestrian ways. Avoid widening roads to accomplish this. Use the same corridors, same materials, same budgets, just please shape our roads for people rather than moving more cars faster. An excellent resource for the latest roadway designs that follow this principle is the National Association of City Transportation Officials (NACTO) (website: nacto.org). They are led by your peers - transportation officials in cities large and small around the country. Please connect with them and learn the latest about completing our streets for people. Seven thumbs up.
2. I would like to see more attention paid to creating safe walking and bicycling paths or lanes throughout Prescott. Iron Springs Road has unconnected walk ways along it, creating unsafe conditions for pedestrians. The road is not wide enough to provide safety for cyclists. Rather than widening roads, more focus should be placed on alternative forms of transportation and creating safety on the streets for ALL users. Drivers and cyclists need education about how to share the road safely. Six thumbs up.
3. We really need a local, perhaps quad city, bus system. I have visited 2 different towns this year with local bus systems and they are very popular. Prices ranged from $\$ 1$ to $\$ 7$ for single rides around the area. It would be a great investment of public funds for our area. Five thumbs up, one thumb down.
4. We need better bike routes for safety. We need a public transportation service to run along route 69 . There are a lot of seniors that would use this, especially from Mayer to Prescott. Five thumbs up.
5. Development on the Dells would be destructive to the wildlife and natural beauty of the area. It's a great place for recreation that draws tourists and important tourism revenue. We can't afford the roadway improvements that would be required to accommodate new traffic in that area. Four thumbs up, one thumb down.
6. The transit system has helped many people get around the tri-city area. More busses and extended routes are needed. Folks need to have a car to get back and forth to work or live within walking distance. Prescott Valley community needs service from 69 to 89A. Four thumbs up.
7. We desperately need a bike path for cyclists to commute/exercise Without being in traffic. 20 miles paved path would be ideal. Many other towns of our size have this. Look at Grand Junction, CO. Four thumbs up.
8. I am encouraged that CYMPO now has an advisory committee to help them understand the effects of our roads and road planning on our wildlife. I understand that this issue must be addressed, especially when accessing Federal highway funding. Often, it is overlooked because it is not always simple or lowest-cost. But I am convinced that it's money well spent to work meaningful, adequate wildlife corridors into initial planning rather than have to retrofit. And it's safer, with fewer vehicle-animal accidents. Thank you for the opportunity to participate in your surveys. Four thumbs up.
Appendix F includes full responses.


## Wildlife Connectivity Questionnaire module

539 total responses


## 5 Performance-Based Evaluation

In order to assess the overall performance and needs of the Regionally Significant Routes, the individual performance measures outlined in Sections 2 and 3 were combined into four performance areas (Pavement, Bridge, Mobility and Safety), as shown in Table 25.

Table 25 - Performance Measures

| Performance Area | Primary Measure | Secondary Measures |
| :---: | :---: | :---: |
| Pavement | Pavement Index (Current Pavement Percentile) | Future Pavement Percentile |
| Bridge | Bridge Index <br> (Deck Rating, Substructure <br> Rating, or Superstructure Rating) | None |
| Mobility | Mobility Index <br> (Combination of Current V/C and Future V/C) | Future Volume/Capacity Travel Time Index (TTI) Planning Time Index (PTI) Multi-Modal |
| Safety | Safety Index <br> (Rate of fatal crashes) | Total crash rate Intersection Crashes \% Fatal \& Incapacitating Injury Crashes |

### 5.1 Regional Needs Assessment

Following the evaluation of segment performance, scores for each performance measure were converted to a universal level of Need. This conversion is necessary because the performance score for each separate measure is not calculated on the same scale. The performance score for each measure was converted to a None, Low, Medium, or High level of Need to allow for comparison across performance areas. The Need identification and refinement process is described in the following sections.

## Step 1- Initial Need Identification

In this step, the baseline segment performance was compared to the performance threshold (Good/Fair/Poor) to provide a starting point for the identification of initial performance needs. This mathematical comparison resulted in an initial Need rating of None, Low, Medium or High for each performance measure. An illustrative example of this process is shown in Table 26.

Table 26 - Conversion from Performance to Need

| Performance Level | Initial Level of Need | Description |
| :---: | :---: | :---: |
| Good | None | All levels of Good |
| Good |  |  |
| Good |  |  |
| Fair | Low | Upper portion of Fair |
| Fair |  |  |
| Fair | Medium | Lower portion of Fair and upper portion of Poor |
| Poor |  |  |
| Poor | High | Lower portion of Poor |
| Poor |  |  |

The performance score for each performance measure was converted to a numeric score (generally ranging from 0-4) representing the initial level of need as follows:

- No need (all levels of ‘Good’ performance) results in a score $<0.25$
- Low need (upper portion of 'Fair' performance) results in a score from 0.25-1.0
- Medium need (lower portion of 'Fair' performance and upper portion of 'Poor' performance) results in a score from 1.0 - 2.0
- High need (lower portion of 'Poor' performance) results in a score > 2.0

This mathematical process resulted in a measurement of the deviation (or variance) from 'Good' performance for each performance measure. The initial need scores for each performance measure were combined to produce an initial segment Need score for each of the four performance areas (Pavement, Bridge, Mobility and Safety).

## Step 2 - Need Refinement

In Step 2, the initial level of Need for each segment was refined using the following information and engineering judgment.

- If an initial Need is not identified, the existence of hot spots in the segment is justification for increasing the level of Need from 'None' to 'Low'.
- Recently completed projects, projects under construction or funded projects with impending construction initiation may be justification for lowering or eliminating a Need.
- Non-funded programmed projects were not used to lower the initial Need because the project may not be implemented as planned.

For example, recent/on-going/funded projects, such as SR 89, SR 69 and Glassford Hill Rd, resulted in a lowered Need score in respective segments. The resulting final Need was carried forward for further evaluation in Step 3.

## Step 3 - Segment Needs

In Step 3, each performance area Needs were combined for each segment to develop an overall segment Need score. Additionally, regional Need scores were calculated for each of the four performance areas.

The resulting highest Need segments are shown in Table 27 - Table 29, based on the overall Need score, Mobility score and Safety score respectively. Refer to Appendix E for the full breakdown of Needs.

Table 27 - Top 10 Segment Overall Need Scores

| Rank | Road | Segment | Overall <br> Need $^{*}$ | Mobility <br> Need $^{*}$ | Safety <br> Need $^{*}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | Gurley St | E of Mt Vernon Ave to McCormick St | 1.88 | 0.23 | 5.40 |
| $\mathbf{2}$ | SR 69 | E of Truwood Dr to Glassford Hill Rd | 1.65 | 2.77 | 2.19 |
| $\mathbf{3}$ | Senator Hwy | Mount Vernon Ave to South CYMPO | Boundary | 1.63 | 0.23 |

*Reference Table 26 for need definition legend

Table 28 - Top 10 Segment Mobility Need Scores

| Rank | Road | Segment | Mobility Need* |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | SR 69 | Glassford Hill Rd to W of Stoneridge Dr | $\mathbf{3 . 1 2}$ |
| $\mathbf{2}$ | SR 69 | E of Truwood Dr to Glassford Hill Rd | $\mathbf{2 . 7 7}$ |
| $\mathbf{3}$ | SR 89 | S of Prescott Lakes Pkwy to S of SR 89A | $\mathbf{2 . 6 1}$ |
| $\mathbf{4}$ | Willow Creek Rd | N of Commerce Dr to N of Pioneer Pkwy | $\mathbf{2 . 1 4}$ |
| $\mathbf{5}$ | SR 69 | W of Stoneridge Dr to E of Sunrise Blvd | $\mathbf{2 . 1 1}$ |
| $\mathbf{6}$ | SR 89 | Road 5 N to North CYMPO Boundary | $\mathbf{2 . 0 4}$ |
| $\mathbf{7}$ | SR 69 | E of Sunrise Blvd to W of Prescott Lakes Pkwy | $\mathbf{1 . 5 2}$ |
| $\mathbf{8}$ | SR 89 | S of SR 89A to N of Road 1 S | $\mathbf{1 . 4 2}$ |
| $\mathbf{9}$ | Willow Creek Rd | Iron Springs Rd to N of Commerce Dr | $\mathbf{1 . 0 2}$ |
| $\mathbf{1 0}$ | SR 89 | N of Road 1 S to Road 5 N | $\mathbf{0 . 9 8}$ |

*Reference Table 26 for need definition legend
Table 29 - Top 10 Segment Safety Need Scores

| Rank | Road | Segment | Safety <br> Need $^{*}$ |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | Gurley St | E of Mt Vernon Ave to McCormick St | 5.40 |
| $\mathbf{2}$ | Senator Hwy | Mount Vernon Ave to South CYMPO |  |
| Boundary | 4.65 |  |  |
| $\mathbf{3}$ | SR 89A | Robert Rd to East CYMPO Boundary | 4.40 |
| $\mathbf{4}$ | Montezuma St | Whipple St to N of Sheldon St | 3.83 |
| $\mathbf{5}$ | Lakeshore Dr | Glassford Hill Rd to E of Robert Rd | 3.41 |
| $\mathbf{6}$ | White Spar | Montezuma St to South CYMPO Boundary | 3.34 |
| $\mathbf{7}$ | Prescott Lakes Pkwy | N of SR 89 to Willow Lake Rd | 3.30 |
| $\mathbf{8}$ | SR 89 | S of SR 89A to N of Road 1 S | $\mathbf{2 . 5 8}$ |
| $\mathbf{9}$ | Iron Springs Rd | W of Williamson Valley Rd to West CYMPO |  |
| $\mathbf{1 0}$ | SR 89 | Roundary | 2.47 |

*Reference Table 26 for need definition legend

### 5.2 Project Recommendation Identification

In order to best capture both existing projects as well as identify new projects, the comprehensive list of projects was developed by 1) referencing previously completed studies, plans and reports; 2) direct TAC input; 3) public comment and 4) project team identification of high need location solutions.

## Previously Completed Studies, Plans and Reports

As outline in Section 2.1, all recently completed studies, plans and reports project recommendations were cataloged. These projects were refined based on programming/construction status, changes to roadway and/or traffic conditions and TAC input on the current significance of these project recommendations.

## Direct TAC Input

RTP TAC members were given the opportunity to present project recommendations for their respective jurisdiction's facilities. These project recommendations were vetted by the full TAC representation and plan development team prior to confirmation as a project recommendation.

## Public Input

The online public engagement process enabled various opportunities for the public to post comments and/or answers specific transportation-related questions. The plan development team reviewed frequently recurring comments, specifically identifying locations or systemic concerns and cross-referenced with needs. Multiple public concerns were adopted as project recommendations, corresponding directly with elevated needs and/or corresponding directly to an existing project recommendation.

## Project Team Identification

As a final project identification measure, the plan development team identified additional project recommendations in order to address elevated-need locations not yet captured by the other project recommendation mechanisms.

### 5.2.1 Project Recommendation Identification

The project recommendation of the CYMPO RTP focused primarily on safety and mobility related to addressing the identified needs, as outline in Section 5.1. These projects were categorized into either Modernization or Expansion investment categories, as further explain in Section 6.1. The 2045 CYMPO RTP Update identified 60 projects including 25 Modernization projects and 35 Expansion projects, which are described in Table 30. All projects are shown across four key focus areas of the CYMPO planning area, described in Figure 55 and shown in Figure 56 - Figure 59.

Table 30 - Project Recommendations

| ID* | Name | Description | Investment Category |
| :---: | :---: | :---: | :---: |
| A | Airport Boulevard | Construct new 2-lane facility | E |
| B | Airport Loop Road | Construct new 2-lane facility | E |
| C | Big Chino Rd Roundabout | Construct one-lane roundabout | M |
| D | Chino Valley Extension | Construct new 4-lane access-controlled facility | E |
| E | Country Club Bypass | Construct new 2-lane facility | E |
| F | Deep Well Ranch Rd | Construct new 4-lanes facility | E |
| G | Fain Rd-SR 169 Connector | Construct new 4-lane access-controlled facility | E |
| H | Glassford Hill Rd Adaptive Signals | Implement Adaptive Signal System | M |
| I | Glassford Hill Rd Extension | Construct new 4-lane facility between SR 89A Great Western Extension | E |
| $J$ | Glassford Hill Rd TI | Convert diamond TI to roundabouts | M |
| K | Glassford Hill Rd WB Parallel Entrance Ramp | Extend WB on-ramp with parallel entrance | M |
| L | Glassford Hill Rd Widening | Widen Glassford Hill Rd from 4 lanes to 6 lanes | E |
| M | Granite Dells Pkwy | Construct new 4-lane facility | E |
| N | Granite Dells Pwky Roundabout | Modify interchange roundabouts configuration | M |
| 0 | Great Western At-Grade Intersection Closure | Close at-grade intersection | M |
| P | Great Western Extension (Phase I) | Construct new grade-separated TI | E |
| Q | Great Western Extension (Phase II) | Construct new 2-lane facility north of SR 89A | E |
| R | Great Western Extension (Phase III) | Construct new 4-lane facility roadway between SR $89 \text { A - SR } 89$ | E |
| S | I-17 Widening | Widen I-17 from 4 lanes to 6 lanes between SR 69 SR 169 | E |
| T | Lakeshore Dr Widening | Widen Lakeshore Dr from 2 lanes to 4 lanes between Navajo Dr - Fain Rd | E |
| U | Navajo Dr Extension | Construct new 4-lane facility south to Old Black Canyon Hwy | E |
| V | Northern Connector | Construct new 2-lane facility | E |
| W | Old Black Canyon Hwy Widening | Widen Old Black Canyon Hwy from 2 lanes to 4 lanes between Stoneridge Dr - County Club Bypass | E |
| X | Peavine Trail | Construct new 2-lane facility | E |

Table 30 - Project Recommendations (cont'd)

| ID* | Name | Description | Investment Category |
| :---: | :---: | :---: | :---: |
| Y | Road 6N Alignment | Align Road 6N approaches at SR 89 | M |
| Z | Santa Fe Loop | Construct new 4-lane facility | E |
| AA | Side Road Connector | Construct new 4-lane facility | E |
| AB | SR 169-l-17 Connector | Construct new 4-lane access-controlled facility | E |
| AC | SR 169 Widening | Widen SR 169 from 2 lanes to 4 lanes | E |
| AD | SR 69 (North of Poland Junction) Shoulder Widening | Widen shoulder from MP 275 - MP 277.5 | M |
| AE | SR 69 / Central Ave Safety Improvements | Implement intersection safety improvements | M |
| AF | SR 69 / Fain Rd | Install curve warning sign, speed reduction sign \& beacons, curve chevrons and roadway lighting | M |
| AG | SR 69 / Glassford Hill Rd | Adjust SR 69 / Glassford Hill Rd Signal Timing | M |
| AH | SR 69 / SR 169 Intersection Improvements | Convert traffic signal to two-lane roundabout | M |
| AI | SR 69 / SR 169 Intersection Improvements | Reconfigure intersection to install second SB left turn lane | M |
| AJ | SR 69 Adaptive Signals | Implement Adaptive Signal System | M |
| AK | SR 69 Widening | Incrementally widen SR 69 from 4 lanes to 6 lanes between SR 169 - SR 89 | E |
| AL | SR 89 / Bramble Dr Roundabout | Construct one-lane roundabout | M |
| AM | SR 89 / Chino Valley Safety Improvements | Install a raised median between MP 327 - MP 329. Construct a traffic signal and install intersection lighting at Road 1 N . Convert traffic signal to two-lane roundabout at Road 2 N . | M |
| AN | SR 89 / Del Rio Centerline Rumble Strips \& Safety Improvements | Install centerline rump strip from MP 333.4-335.9 | M |
| AO | SR 89 / SR 89A EB Ramp Improvements | Construct EB dual-lane entrance ramp | M |
| AP | SR 89 Raised Median | Install a raised median from Butterfield Rd - Road 3N \& retime signal at Road 3N | M |
| AQ | SR 89 Raised Median | Install a raised median from Perkinsville Rd - Road 3 N with two-lane roundabout at Road 3 N | M |
| AR | SR 89 Shoulder Widening | Widen shoulder from Phippen Tr - Willow Lake Rd | M |
| AS | SR 89 TI EB Dual Left-Turn | Construct second EB off-ramp left-turn lane | M |
| AT | SR 89 Widening | Widen SR 89 from 2 lanes to 4 lanes w/medians between Old Highway 89 to Frontier Rd. Construct one-lane roundabouts at Old Highway 89 and Frontier Rd | E |
| AU | SR 89 Widening | Widen SR 89 from 2 lanes to 4 lanes w/medians between Road 3 N - Road 4 N | E |
| AV | SR 89 Widening | Widen SR 89 from 2 lanes to 4 lanes w/medians between Road 4N - Road 5N. <br> Construct Roundabout at Road 5N | E |
| AW | SR 89 Widening (Phase I) | Widen SR 89 from 4 lanes to 6 lanes between Deep Well Ranch Rd - Center St | E |
| AX | SR 89 Widening (Phase II) | Widen SR 89 from 4 lanes to 6 lanes between SR 89A - Deep Well Ranch Rd | E |

Table 30 - Project Recommendations (cont'd)

| ID\# | Name | Investment <br> Category |  |
| :--- | :--- | :--- | :---: |
| AY | SR 89 Willow Lake Rd - <br> Phippen Tr Widening | Description | E |
| AZ | SR 89A / Robert Road TI | Construct new grade-separated TI |  |
| BA | SR 89A Widening (Phase I) | Widen SR 89A from 4 lanes to 6 lanes between SR <br> $89-$ Glassford Hill Rd | E lanes |
| BB | SR 89A Widening (Phase II) | Widen SR 89A from 4 lanes to 6 lanes between <br> Glassford Hill Rd - Robert Rd | E |
| BC | SR 89A Widening (Phase III) | Widen SR 89A from 2 lanes to 4 lanes between Fain <br> Rd - MP 329 | E |
| BD | Jasper Parkway | Construct new 4-lane facility between SR 69 - SR <br> 89A | E |
| BE | Sundog Connector | Construct new 4-lane facility | E |
| BF | Viewpoint Dr TI WB <br> Entrance Ramp | Expand WB entrance ramp to 2-lanes |  |
| BG | Wildlife Warning Signing | Install Wildlife Warning Signage from MP 334 - MP <br> $348 ~(4 ~ s i g n s) ~$ | M |
| BH | Willow Creek Rd Adaptive <br> Signals | Implement Adaptive Signal System | M |

${ }^{*} M=$ Modernization, $E=$ Expansion
\# ID does not indicate priority and should be used for reference only

### 5.3 Project Prioritization

The performance Needs described in Section 5.1 were used to assess the potential effectiveness of the projects described in Section 5.2. Each project was evaluated based on their performance effectiveness which included determining a Performance Effectiveness Score (PES) based on how much each solution impacts the existing performance and needs scores for each segment.
As part of this process, each project was also evaluated through a risk analysis. A solution risk probability and consequence analysis was conducted to develop a project-level risk weighting factor. This risk analysis is a numeric scoring system to help address the risk of not implementing a project based on the likelihood and severity of performance failure.
The PES, weighted risk factor and segment average need score were combined to create a Prioritization Score. Projects were ranked by prioritization score; higher scores indicate the project has a greater potential to enhance the performance in a cost-effective manner. Solutions that address multiple performance needs tend to score higher in this process.

The Performance Effectiveness Evaluation includes the following steps:

- Estimate post-project performance for each performance areas; pavement, bridge, mobility and safety
- Use post-project performance scores to calculate post-project level of need for each performance areas
- Compare the pre-project level of need to the post-project level of need to determine the reduction in level of need (potential solution benefit) for each of the four performance areas
- Use the reduction in level of need (benefit) and cost to calculate the PES

The benefit (reduction in need) is measured as a one-time benefit. However, different types of projects will have varying service lives during which the benefits would be obtained. For example, a preservation project would likely have a shorter stream of benefits over time when compared to a modernization or expansion project. To address the varying lengths of benefit streams, each project was classified as a 10year, 20-year, 30-year or 75-year benefit stream, and a net present value (NPV) factor (FNpv) was applied to the calculation. A 3\% discount rate was used to calculate $F_{N P V}$ for each classification of solution. For example, a 10-year service life resulted in the use of an NPV factor of 8.8 , and a 30 -year service life resulted in the use of an NPV factor of 20.2.
Another factor in assessing benefits is the number of travelers who would benefit from the implementation of the project. This factor varies between projects depending on the length of the solution and the magnitude of daily traffic volumes. Multiplying the solution length by the daily traffic volume results in vehicle-miles travelled (VMT), which provides a measure of the amount of traffic exposure that would receive the benefit of the proposed project. The VMT is converted to a VMT factor (Fvмт), which is on a scale between 0 and 5 .

Using this information, the PES was calculated using the following equation:

$$
\begin{aligned}
\text { PES }= & ((\text { Sum of all Segment-Level Benefit Scores + Sum of all Region-Level Benefit Scores) } / \\
& \text { Cost) x } \text { FVMT }^{x} F_{\text {NPV }}
\end{aligned}
$$

Where:
Segment-Level Benefit Score = Reduction in Segment-Level Need (benefit) calculated for each performance area
Region-Level Benefit Score = Reduction in Regional Need (benefit) calculated for each performance area
Cost = estimated cost of project in millions of dollars (see Appendix G)
$F_{V M T}=$ Factor between 0 and 5 to account for VMT at location of project based on existing daily volume and length of solution
$F_{N P V}=$ Factor (ranging from 8.8 to 30.6 as previously described) to address anticipated longevity of service life (and duration of benefits) for each project
Following the calculation of the PES, an additional step was taken to develop the prioritized list of projects. A risk probability and consequence analysis was conducted to develop a project-level risk weighting factor. This risk analysis is a numeric scoring system to help address the risk of not implementing a project based on the likelihood and severity of performance failure. Each of the four performance areas were assigned a numeric risk factor ranging between 1.14 (for Pavement) and 1.78 (for Safety). Using this information, a weighted (based on benefit) project-level numeric risk factor was calculated for each project.

The Performance Effectiveness Score, weighted risk factor and segment average need score were combined to create a prioritization score as follows:

Prioritization Score $=$ PES $\times$ Weighted Risk Factor $x$ Segment Average Need Score Where:

PES = Performance Effectiveness Score
Weighted Risk Factor = Weighted factor to address risk of not implementing a project based on the likelihood and severity of the performance failure
Segment Average Need Score = Segment level need score
The projects were prioritized based on the calculation described above. Higher prioritization scores indicate more immediate project priority. Projects that address multiple performance areas tend to score higher in this process. See full project prioritizations in Sections 6.2 and 6.3.

Figure 55 - Project Recommendation Key Focus Areas


Figure 56 - Project Recommendations Key Focus Area \#1


Figure 57 - Project Recommendations Key Focus Area \#2


Figure 58 - Project Recommendations Key Focus Area \#3


Figure 59 - Project Recommendations Key Focus Area \#4


## 6 Regional Transportation Plan

### 6.1 Recommended Investment Choice

### 6.1.1 Introducing a Recommended Investment Choice

The establishment of a Recommended Investment Choice (RIC) is a new method of establishing CYMPO's RTP. A RIC is a policy which outlines investment allocations across three transportation investment categories; Preservation, Modernization and Expansion. The development of a RIC allows for greater flexibility in planning and programming decision-making, identifies an investment approach congruent with the agency's vision, goals and performance targets and allows for greater plan compliance in the event of variable funding environments.

Historically, CYMPO has developed an RTP resulting in list of future projects across mid-, long- and extended timeframes, creating a list of project recommendations for future consideration at the town, city, county and/or MPO level. This 2045 CYMPO RTP Update is anchored by the RIC policy as established by TAC, Executive Board and public inputs. This policy provides the framework for CYMPO and its member agencies to make regional transportation planning decisions that best serve the regional needs and promote compliance with the adopted federally performance targets. Figure 60 provides a definition and examples of each of the three investment categories.

Figure 60 - Investment Category Descriptions

## CYMPO REGIONAL TRANSPORTATION PLAN

## PRESERVATION

Projects that preserve
transportation infrastructure
by mitigating asset deterioration
and elongating asset service life

- Pavement
- Bridge


## MODERNIZATION

Projects that improve travel efficiency, functionality, and/or safety without physically adding roadway capacity

- Safety Countermeasures
- Technology Improvements
- Intersection Improvements
- Roadway Asset Upgrades


## EXPANSION

Projects that add roadway capacity through the addition of new facilities and/or services

- Full Asset Reconstruction
- New Roadway Construction
- Roadway/Bridge Widening


### 6.1.2 Recommended Investment Choice Development Process

The CYMPO Recommended Investment Choice was developed during an interactive Executive Board and Stakeholder Workshop and an RTP TAC Meeting between November - December 2019. The Executive Board and Stakeholder Workshop was held on November 21, 2019 and gathered both CYMPO Executive Board members and RTP TAC members together to discuss the plan's progress, the evolution of the performance-based analysis conducted across the regionally significant roadway network and multiple RIC development scenarios.

The workshop participants were asked to participate in an interactive exercise to emulate the decisionmaking process of establishing funding priorities across major investment categories: Preservation, Modernization and Expansion. Each participant was presented with 7 individual marbles to represent the
funding allowance of the CYMPO region. Each participant was presented with the choice of how they would best divide their simulated funding allowance between Preservation, Modernization and Expansion, without further context as to gather an unguided baseline of prioritization between these investment categories.

Following this initial scenario, workshop facilitators presented the cumulative results of all workshop participants and reported out the projected performance implications this decision would make on the regionally significant roadway network. This projected performance outcome was produced using a performance-based model that attributes estimated regional benefits per investment quantities across pavement, safety and level-of-service measures. These estimates were established based upon benefits from actual CYMPO-area projects to create a reasonable expected benefit per general investment type.

Following the initial scenario, the workshop participants were presented a second scenario run to refine their investment allocations having seen the projected performance outcomes. The third and fourth scenarios replicated this process but under the premise of increased available funding ( $+33 \%$ ) and decreased available funding ( $-33 \%$ ) respectively. Each of the respective scenario outcomes are presented in Table 31.

Table 31 - Executive Board \& Stakeholder Workshop RIC Scenarios

| Scenarios | Preservation | Modernization | Expansion |
| :--- | :---: | :---: | :---: |
| ADOT SW Rural | $78 \%$ | $22 \%$ | $0 \%$ |
| ADOT SW w/ MAG \& PAG | $35 \%$ | $18 \%$ | $47 \%$ |
| Public Input | $60 \%$ | $21 \%$ | $19 \%$ |
| Current Program | $47 \%$ | $19 \%$ | $34 \%$ |
| Board Scenario \#1 | $33 \%$ | $34 \%$ | $33 \%$ |
| Board Scenario \#2 | $42 \%$ | $28 \%$ | $30 \%$ |
| Board Scenario \#3 (more \$) | $34 \%$ | $32 \%$ | $34 \%$ |
| Board Scenario \#4 (less \$) | $53 \%$ | $23 \%$ | $24 \%$ |
| Average | $45 \%$ | $26 \%$ | $29 \%$ |
| Rounded Average | $\mathbf{4 5 \%}$ | $\mathbf{2 5 \%}$ | $\mathbf{3 0} \%$ |

Following the Executive Board and Stakeholder Workshop meeting, the RTP TAC discussed the resulting RIC percentage breakdowns. During the December 9, 2019 TAC meeting, the TAC unanimously agreed to select a Rounded Average RIC, which was an average of all presented and discussed RIC scenarios resulting from the Executive Board and Stakeholder Workshop (shown in Table 31 excluding two ADOT scenarios). As shown in Figure 61, the selected CYMPO RIC preference was 45\% Preservation, $25 \%$ Modernization and $30 \%$ Expansion.

The selected CYMPO preferred RIC will serve as the investment breakdown policy to guide future regional project programming decision-making moving forward as an agency. Each individual jurisdictions' CIPs and local programming decisions

Figure 61 - 2045 CYMPO RTP Update RIC

are not to be superseded by this policy. Conversely, the CYMPO RIC policy serves to complement each independent jurisdictions' decision-making and provides investment guidelines for short- mid- and longterm regional transportation project planning, programming and scoping efforts.

### 6.2 2030 Performance Based Prioritization

The project recommendations identified in Section 5.2 were assessed and prioritized using the 2030 transportation volumes projections as derived from the 2030 CYMPO Travel Demand model's future volume outputs. By doing so, this prioritization represents a mid-term (10-year) modeling projection and respective project prioritizations. Therefore, mobility needs at locations that are impacted by existing or near-term development activity receive higher prioritization scores at this timeframe.

All projects were scored independently from all other projects on both lists, reflecting benefit to the existing roadway network. As the roadway network changes and expands in the future due to project completion on and off this list, project needs may increase, decrease or be eliminated entirely.

Modernization and Expansion projects were assessed, scored and prioritized separately. Respectively, Modernization and Expansion projects were then divided into high, medium and lower priority as reflected in Table 32 - Table 37.

## Modernization

Table 32-2030 Modernization - Higher Priority

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate* | Score |
| :---: | :--- | :--- | :---: | :---: | :---: |
| AG | SR 69 / Glassford Hill <br> Rd | Adjust SR 69 / Glassford Hill Rd Signal Timing | $\$ 0.01$ | 690.3 |
| AJ | SR 69 Adaptive Signals | Implement Adaptive Signal System | $\$ 0.80$ | 407.6 |

*Project cost estimates are expressed in millions
Table 33-2030 Modernization - Medium Priority

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate* | Score |
| :---: | :--- | :--- | :---: | :---: |
| BH | Willow Creek Rd <br> Adaptive Signals | Implement Adaptive Signal System | 74.3 |  |
| AR | SR 89 Shoulder <br> Widening | Widen shoulder from Phippen Tr - Willow <br> Lake Rd | $\$ 1.13$ | 55.5 |
| AS | SR 89 TI EB Dual Left- <br> Turn | Construct second EB off-ramp left-turn lane | $\$ 0.13$ | 22.6 |
| AN | SR 89 / Del Rio <br> Centerline Rumble <br> Strips \& Safety <br> Improvements | Install centerline rump strip from MP 333.4 - <br> 335.9 | $\$ 0.99$ | 21.5 |
| H | Glassford Hill Rd <br> Adaptive Signals | Implement Adaptive Signal System | $\$ 0.45$ | 18.3 |
| BG | Widllife Warning <br> Signing | Install Wildlife Warning Signage from MP 334 <br> - MP 348 (4 signs) | $\$ 0.01$ | 12.2 |

*Project cost estimates are expressed in millions

Table 34-2030 Modernization - Lower Priority

| ID | Name | Description <br> Planstruction <br> Cost <br> Estimate* | Score |  |
| :--- | :--- | :--- | :---: | :---: |
| AH | SR 69 / SR 169 <br> Intersection <br> Improvements | Convert traffic signal to two-lane roundabout | $\$ 4.37$ | 7.8 |
| AL | SR 89 / Bramble Dr <br> Roundabout | Construct one-lane roundabout | $\$ 5.62$ | 3.3 |
| AF | SR 69 / Fain Rd | Install curve warning sign, speed reduction <br> sign \& beacons, curve chevrons and roadway <br> lighting | $\$ 1.36$ | 3.2 |
| AP | SR 89 Raised Median | Install a raised median from Butterfield Rd - <br> Road 3N \& retime signal at Road 3N | $\$ 0.54$ | 2.0 |
| AO | SR 89 / SR 89A EB <br> Ramp Improvements | Construct EB dual-lane entrance ramp | $\$ 2.42$ | 1.2 |
| AQ | SR 89 Raised Median | Install a raised median from Perkinsville Rd - <br> Road 3N with two-lane roundabout at Road <br> 3N | $\$ 2.22$ | 0.6 |
| AM | SR 89 / Chino Valley <br> Safety Improvements | Install a raised median between MP 327 - MP <br> 329. Construct a traffic signal and install <br> intersection lighting at Road 1 N. Convert <br> traffic signal to two-lane roundabout at Road 2 <br> N. | $\$ 9.61$ | 0.5 |
| D | Big Chino Rd <br> Roundabout | Construct one-lane roundabout | $\$ 0.0$ |  |
| K | Glassford Hill Rd WB <br> Parallel Entrance Ramp | Extend WB on-ramp with parallel entrance | $\$ 0.26$ | 0.2 |
| J | Glassford Hill Rd TI | Convert diamond TI to roundabouts | $\$ 7.35$ | 0.0 |
| AI | SR 69 / SR 169 <br> Intersection <br> Improvements | Reconfigure intersection to install second SB <br> left turn lane | $\$ 0.21$ | 0.0 |
| N | Granite Dells Pwky <br> Roundabout | Modify interchange roundabouts configuration | $\$ 0.32$ | 0.0 |
| O | Great Western At- <br> Grade Intersection <br> Closure | Close at-grade intersection | N/A | 0.0 |
| Y | Road 6N Alignment | Align Road 6N approaches at SR 89 | $\$ 0.53$ | 0.0 |
| BF | Viewpoint Dr TI WB <br> Entrance Ramp | Expand WB entrance ramp to 2-lanes | $\$ 0.02$ | 0.0 |
| AD | SR 69 (North of Poland <br> Junction) Shoulder <br> Widening | Widen shoulder from MP 275 - MP 277.5 | $\$ 3.17$ | 0.0 |
| AE | SR 69 / Central Ave <br> Safety Improvements | Implement intersection safety improvements | $\$ 0.23$ | 0.0 |

*Project cost estimates are expressed in millions

## Expansion

Table 35-2030 Expansion - Higher Priority

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate* | Score |
| :---: | :--- | :--- | :---: | :---: |
| AY | SR 89 Willow Lake Rd - <br> Phippen Tr Widening | Widen SR 89 from 2 lanes to 4 lanes | $\$ 8.60$ | 32.7 |
| AK | SR 69 Widening | Incrementally widen SR 69 from 4 lanes to 6 <br> lanes between SR 169 - SR 89 | $\$ 33.25$ | 26.7 |

*Project cost estimates are expressed in millions
Table 36-2030 Expansion - Medium Priority

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate | Score |
| :--- | :--- | :--- | :---: | :---: |
| AX | SR 89 Widening (Phase <br> II) | Widen SR 89 from 4 lanes to 6 lanes between <br> SR 89A - Deep Well Ranch Rd | $\$ 6.19$ | 12.9 |
| BE | Sundog Connector | Construct new 4-lane facility | $\$ 27.72$ | 5.8 |
| AT | SR 89 Widening | Widen SR 89 from 2 lanes to 4 lanes <br> w/medians between Old Highway 89 to <br> Frontier Rd. Construct one-lane roundabouts <br> at Old Highway 89 and Frontier Rd | $\$ 14.54$ | 4.0 |
| AW | SR 89 Widening (Phase <br> I) | Widen SR 89 from 4 lanes to 6 lanes between <br> Deep Well Ranch Rd - Center St | $\$ 30.80$ | 2.6 |

*Project cost estimates are expressed in millions
Table 37-2030 Expansion - Lower Priority

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate* | Score |
| :---: | :--- | :--- | :---: | :---: |
| AU | SR 89 Widening | Widen SR 89 from 2 lanes to 4 lanes <br> w/medians between Road 3N - Road 4N | $\$ 6.49$ | 1.8 |
| BC | SR 89A Widening <br> (Phase III) | Widen SR 89A from 2 lanes to 4 lanes <br> between Fain Rd - MP 329 | $\$ 22.29$ | 1.5 |
| AV | SR 89 Widening | Widen SR 89 from 2 lanes to 4 lanes <br> w/medians between Road 4N - Road 5N. <br> Construct Roundabout at Road 5N | $\$ 9.24$ | 1.0 |
| L | Glassford Hill Rd <br> Widening | Widen Glassford Hill Rd from 4 lanes to 6 <br> lanes | $\$ 6.35$ | 1.0 |
| T | Lakeshore Dr Widening | Widen Lakeshore Dr from 2 lanes to 4 lanes <br> between Navajo Dr - Fain Rd | $\$ 8.96$ | 0.9 |
| E | Chino Valley Extension | Construct new 4-lane access-controlled facility | $\$ 103.51$ | 0.9 |
| AZ | SR 89A / Robert Road <br> TI | Construct new grade-separated TI | $\$ 34.78$ | 0.5 |
| R | Great Western <br> Extension (Phase III) | Construct new 4-lane facility roadway <br> between SR 89A - SR 89 | $\$ 91.17$ | 0.4 |
| BB | SR 89A Widening <br> (Phase II) | Widen SR 89A from 4 lanes to 6 lanes <br> between Glassford Hill Rd - Robert Rd | $\$ 12.71$ | 0.3 |

Table 37-2030 Expansion - Lower Priority (cont'd)

| ID | Name | Description | Planning Construction Cost Estimate* | Score |
| :---: | :---: | :---: | :---: | :---: |
| BA | SR 89A Widening (Phase I) | Widen SR 89A from 4 lanes to 6 lanes between SR 89 - Glassford Hill Rd | \$21.53 | 0.1 |
| P | Great Western Extension (Phase I) | Construct new grade-separated TI | \$25.31 | 0.1 |
| BD | Jasper Parkway | Construct new 4-lane facility between SR 69 SR 89A | \$30.96 | 0.1 |
| AC | SR 169 Widening | Widen SR 169 from 2 lanes to 4 lanes | \$19.,87 | 0.1 |
| G | Fain Rd - SR 169 Connector | Construct new 4-lane access-controlled facility | \$77.98 | 0.0 |
| F | Deep Well Ranch Rd | Construct new 4-lanes facility | \$15.32 | 0.0 |
| 1 | Glassford Hill Rd Extension | Construct new 4-lane facility between SR 89A - Great Western Extension | \$21.80 | 0.0 |
| E | Country Club Bypass | Construct new 2-lane facility | \$27.49 | 0.0 |
| S | I-17 Widening | Widen I-17 from 4 lanes to 6 lanes between SR 69 - SR 169 | \$88.84 | 0.0 |
| AA | Side Road Connector | Construct new 4-lane facility | \$23.99 | 0.0 |
| V | Northern Connector | Construct new 2-lane facility | \$19.28 | 0.0 |
| B | Airport Loop Road | Construct new 2-lane facility | \$31.69 | 0.0 |
| A | Airport Boulevard | Construct new 2-lane facility | \$11.65 | 0.0 |
| M | Granite Dells Pkwy | Construct new 4-lane facility | \$26.66 | 0.0 |
| W | Old Black Canyon Hwy Widening | Widen Old Black Canyon Hwy from 2 lanes to 4 lanes between Stoneridge Dr - County Club Bypass | \$9.07 | 0.0 |
| AB | $\text { SR } 169 \text { - I-17 }$ <br> Connector | Construct new 4-lane access-controlled facility | \$102.90 | 0.0 |
| U | Navajo Dr Extension | Construct new 4-lane facility south to Old Black Canyon Hwy | \$5.64 | 0.0 |
| X | Peavine Trail | Construct new 2-lane facility | \$0.14 | 0.0 |
| Z | Santa Fe Loop | Construct new 4-lane facility | \$23.18 | 0.0 |
| Q | Great Western Extension (Phase II) | Construct new 2-lane facility north of SR 89A | N/A | 0.0 |

### 6.32045 Performance Based Prioritization

As done for the 2030 prioritization process, the project recommendations identified in Section 5.2 were also assessed and prioritized using the 2045 transportation volumes projections as derived from the 2045 CYMPO Travel Demand model future volume outputs. By doing so, this prioritization represents a longterm (25-year) modeling projection and respective project prioritizations. Therefore, mobility needs at locations that are impacted by expected future development activity receive higher prioritization scores at this timeframe whereas they may not have been reflected at the 2030 timeframe.

All projects were scored independently from all other projects on both lists, reflecting benefit to the existing roadway network. As the roadway network changes and expands in the future due to project completion on and off this list, project needs may increase, decrease or be eliminated entirely.

Modernization and Expansion projects were assessed, scored and prioritized separately. Respectively, Modernization and Expansion projects were then divided into high, medium and lower priority as reflected
in Table 38 - Table 43. Refer to Appendix H for Project Recommendation Detail sheets for Higher and Medium priority projects

## Modernization

Table 38-2045 Modernization - Higher Priority

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate* | Score |
| :---: | :--- | :--- | :---: | :---: |
| AG | SR 69/Glassford Hill <br> Rd | Adjust SR 69 / Glassford Hill Rd Signal Timing | $\$ 0.012$ | 450.2 |
| AJ | SR 69 Adaptive Signals | Implement Adaptive Signal System | $\$ 0.80$ | 501.2 |
| BH | Willow Creek Rd <br> Adaptive Signals | Implement Adaptive Signal System | $\$ 0.72$ | 151.7 |

*Project cost estimates are expressed in millions
Table 39 - 2045 Modernization - Medium Priority

| ID | Name | Description <br> Planning <br> Construction <br> Cost <br> Estimate* | Score |  |
| :---: | :--- | :--- | :---: | :---: |
| AR | SR 89 Shoulder <br> Widening | Widen shoulder from Phippen Tr - Willow <br> Lake Rd | $\$ 1.13$ | 64.5 |
| H | Glassford Hill Rd <br> Adaptive Signals | Implement Adaptive Signal System | $\$ 0.45$ | 39.1 |
| AS | SR 89 TI EB Dual Left- <br> Turn | Construct second EB off-ramp left-turn lane | $\$ 0.13$ | 30.3 |
| AN | SR 89 / Del Rio <br> Centerline Rumble <br> Strips \& Safety <br> Improvements | Install centerline rump strip from MP 333.4 - <br> 335.9 | $\$ 0.99$ | 26.8 |
| BG | Wildlife Warning <br> Signing | Install Wildlife Warning Signage from MP 334 <br> - MP 348 (4 signs) | $\$ 0.01$ | 15.2 |
| AH | SR 69 / SR 169 <br> Intersection <br> Improvements | Convert traffic signal to two-lane roundabout | $\$ 4.37$ | 9.4 |

*Project cost estimates are expressed in millions
Table 40-2045 Modernization - Lower Priority

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate* | Score |
| :---: | :--- | :--- | :---: | :---: |
| AL | SR 89 / Bramble Dr <br> Roundabout | Construct one-lane roundabout | 4.2 |  |
| AF | SR 69 / Fain Rd | Install curve warning sign, speed reduction <br> sign \& beacons, curve chevrons and roadway <br> lighting | $\$ 1.36$ | 3.2 |
| AP | SR 89 Raised Median | Install a raised median from Butterfield Rd - <br> Road 3N \& retime signal at Road 3N | $\$ 0.54$ | 3.0 |
| K | Glassford Hill Rd WB <br> Parallel Entrance Ramp | Extend WB on-ramp with parallel entrance | $\$ 0.26$ | 3.0 |

Table 40-2045 Modernization - Lower Priority (cont'd)

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate* | Score |
| :---: | :--- | :--- | :---: | :---: |
| AO | SR 89 / SR 89A EB <br> Ramp Improvements | Construct EB dual-lane entrance ramp | 1.6 |  |
| AM | SR 89 / Chino Valley <br> Safety Improvements | Install a raised median between MP 327 - MP <br> 329. Construct a traffic signal and install <br> intersection lighting at Road 1 N. Convert <br> traffic signal to two-lane roundabout at Road 2 <br> N. | $\$ 9.61$ | 1.0 |
| AQ | SR 89 Raised Median | Install a raised median from Perkinsville Rd - <br> Road 3N with two-lane roundabout at Road <br> 3N | $\$ 2.22$ | 0.9 |
| AI | SR 69 / SR 169 <br> Intersection <br> Improvements | Reconfigure intersection to install second SB <br> left turn lane | $\$ 0.21$ | 0.9 |
| D | Big Chino Rd <br> Roundabout | Construct one-lane roundabout | $\$ 5.01$ | 0.3 |
| J | Glassford Hill Rd TI <br> Great Western At- <br> Grade Intersection <br> Closure | Convert diamond TI to roundabouts |  |  |
| Close at-grade intersection | $\$ 7.35$ | 0.2 |  |  |
| N | Granite Dells Pwky <br> Roundabout | Modify interchange roundabouts configuration | $\$ 0.32$ | 0.0 |
| Y | Road 6N Alignment <br> Niewpoint Dr TI WB <br> Entrance Ramp | Align Road 6N approaches at SR 89 | $\$ 0.53$ | 0.0 |
| Expand WB entrance ramp to 2-lanes | $\$ 0.02$ | 0.0 |  |  |
| AD | SR 69 (North of Poland <br> Junction) Shoulder <br> Widening | Widen shoulder from MP 275 - MP 277.5 | $\$ 3.17$ | 0.0 |
| AE | SR 69 / Central Ave <br> Safety Improvements | Implement intersection safety improvements | $\$ 0.23$ | 0.0 |

*Project cost estimates are expressed in millions

## Expansion

Table 41-2045 Expansion - Higher Priority

| ID | Name | Description | Planning <br> Construction <br> Cost <br> Estimate* | Score |
| :--- | :--- | :--- | :---: | :---: |
| AY | SR 89 Willow Lake Rd - <br> Phippen Tr Widening | Widen SR 89 from 2 lanes to 4 lanes | $\$ 8.60$ | 48.1 |
| AK | SR 69 Widening | Incrementally widen SR 69 from 4 lanes to 6 <br> lanes between SR 169 - SR 89 | $\$ 33.25$ | 33.5 |
| AX | SR 89 Widening (Phase <br> II) | Widen SR 89 from 4 lanes to 6 lanes between <br> SR 89A - Deep Well Ranch Rd | $\$ 6.19$ | 27.4 |

Table 42-2045 Expansion - Medium Priority

| ID | Name | Description <br> Estimate* | Planning <br> Construction <br> Cost | Score <br> Es |
| :---: | :--- | :--- | :---: | :---: |
| AW | SR 89 Widening (Phase <br> I) | Widen SR 89 from 4 lanes to 6 lanes between <br> Deep Well Ranch Rd - Center St <br> Widen SR 89 from 2 lanes to 4 lanes <br> w/medians between Road 3N - Road 4N | $\$ 30.80$ | 7.4 |
| AU | SR 89 Widening | Widen Glassford Hill Rd from 4 lanes to 6 <br> lanes | $\$ 6.49$ | 7.1 |
| L | Glassford Hill Rd <br> Widening | Widen SR 89 from 2 lanes to 4 lanes <br> w/medians between Old Highway 89 to <br> Frontier Rd. Construct one-lane roundabouts <br> at Old Highway 89 and Frontier Rd | $\$ 6.35$ | 6.1 |
| AT | SR 89 Widening | Widen SR 89 from 2 lanes to 4 lanes <br> w/medians between Road 4N - Road 5N. <br> Construct Roundabout at Road 5N | $\$ 14.54$ | 5.5 |
| AV | SR 89 Widening |  |  |  |

*Project cost estimates are expressed in millions
Table 43-2045 Expansion - Lower Priority

| ID | Name | Description | Planning Construction Cost Estimate* | Score |
| :---: | :---: | :---: | :---: | :---: |
| E | Chino Valley Extension | Construct new 4-lane access-controlled facility | \$103.51 | 1.9 |
| BC | SR 89A Widening (Phase III) | Widen SR 89A from 2 lanes to 4 lanes between Fain Rd - MP 329 | \$22.29 | 1.5 |
| R | Great Western Extension (Phase III) | Construct new 4-lane facility roadway between SR 89A - SR 89 | \$91.17 | 1.2 |
| T | Lakeshore Dr Widening | Widen Lakeshore Dr from 2 lanes to 4 lanes between Navajo Dr - Fain Rd | \$8.96 | 0.9 |
| G | Fain Rd - SR 169 Connector | Construct new 4-lane access-controlled facility | \$77.98 | 0.8 |
| BD | Jasper Parkway | Construct new 4-lane facility between SR 69 SR 89A | \$30.96 | 0.7 |
| P | Great Western Extension (Phase I) | Construct new grade-separated TI | \$25.31 | 0.6 |
| AZ | SR 89A / Robert Road TI | Construct new grade-separated TI | \$34.78 | 0.5 |
| AC | SR 169 Widening | Widen SR 169 from 2 lanes to 4 lanes | \$19.87 | 0.5 |
| F | Deep Well Ranch Rd | Construct new 4-lanes facility | \$15.32 | 0.4 |
| E | Country Club Bypass | Construct new 2-lane facility | \$27.49 | 0.4 |
| BB | SR 89A Widening <br> (Phase II) | Widen SR 89A from 4 lanes to 6 lanes between Glassford Hill Rd - Robert Rd | \$12.71 | 0.3 |
| BA | SR 89A Widening (Phase I) | Widen SR 89A from 4 lanes to 6 lanes between SR 89 - Glassford Hill Rd | \$21.53 | 0.1 |
| 1 | Glassford Hill Rd Extension | Construct new 4-lane facility between SR 89A - Great Western Extension | \$21.80 | 0.0 |
| S | $\mathrm{I}-17$ Widening | Widen I-17 from 4 lanes to 6 lanes between SR 69 - SR 169 | \$88.84 | 0.0 |
| AA | Side Road Connector | Construct new 4-lane facility | \$23.99 | 0.0 |

Table 43-2045 Expansion - Lower Priority (cont'd)

| ID | Name | Description <br> Planning <br> Construction <br> Cost <br> Estimate* | Score |  |
| :---: | :--- | :--- | :---: | :---: |
| V | Northern Connector | Construct new 2-lane facility | $\$ 19.28$ | 0.0 |
| B | Airport Loop Road | Construct new 2-lane facility | $\$ 11.69$ | 0.0 |
| A | Airport Boulevard | Construct new 2-lane facility | $\$ 2.65$ | 0.0 |
| M | Granite Dells Pkwy | Construct new 4-lane facility | 0.0 |  |
| W | Old Black Canyon Hwy <br> Widening | Widen Old Black Canyon Hwy from 2 lanes to <br> 4 lanes between Stoneridge Dr - County Club <br> Bypass | $\$ 9.07$ | 0.0 |
| AB | SR 169 - I-17 <br> Connector | Construct new 4-lane access-controlled facility | $\$ 102.90$ | 0.0 |
| U | Navajo Dr Extension | Construct new 4-lane facility south to Old <br> Black Canyon Hwy | $\$ 5.64$ | 0.0 |
| X | Peavine Trail | Construct new 2-lane facility | $\$ 0.14$ | 0.0 |
| Z | Santa Fe Loop | Construct new 4-lane facility | $\$ 23.18$ | 0.0 |
| Q | Great Western <br> Extension (Phase II) | Construct new 2-lane facility north of SR 89A | N/A | 0.0 |

*Project cost estimates are expressed in millions

## 7 Implementation Plan

### 7.1 Policy and Project Implementation

The CYMPO preferred RIC and prioritized list of projects provide both a programmatic framework and actionable improvements to drive future transportation regional investment prioritization. The CYMPO preferred RIC is to be used to guide regional transportation investment distributions across various priorities. The prioritized list of projects outlined in this report are actionable projects that represent potential investments into both the modernization and expansion portions of the CYMPO RIC.

As expressed throughout this plan, specific locations have not been identified for preservation activities, including both pavement and bridges. The existing efforts CYMPO member agencies and ADOT conduct have shown to be effectively maintaining high quality pavement and bridge facilities. In extraordinary circumstances, including extreme weather events, programmatic mechanisms in place have allowed for swift reactions to address suddenly emerging concerns.

### 7.2 Other Projects / Studies

In addition to the project lists outlined in Sections 6.2 and 6.3, a need for additional planning studies was identified for the CYMPO region and/or individual member agencies to pursue, outside of the perimeters of the RTP.

## Downtown Prescott Area Circulation Study

The Downtown Prescott Areas is a uniquely different transportation environment from the rest of the CYMPO region, with a multitude of congested urban traffic, small blocks, high pedestrian activity, high parking demand and frequent special events. This urban context presents numerous challenges in efficiently circulating traffic, providing safe vehicle-pedestrian interactions, amongst other concerns. A dedicated downtown area study would allow for a localized small area transportation study approach to be taken for the greater downtown core to address potential countermeasures to these challenges.

## Active Transportation Plan / Bicycle \& Pedestrian Action Plan

In addition to the multi-modal analysis conducted in this RTP, the CYMPO region would greatly benefit from a comprehensive Active Transportation Plan and/or Bicycle \& Pedestrian Action Plan. The climate, topography and access to natural recreation make the CYMPO region attractive to bicycle and pedestrian activity. In particular, the City of Prescott and Town of Prescott Valley have invested in both on- and offstreet bicycle and pedestrian amenities and facilities, included by not limited to bicycle lanes, sidewalks, multi-use paths, unpaved paths and recreational trails.

This large inventory of facilities across multiple jurisdictions would benefit from a focused study to comprehensively assess all existing, planned and potentially new bicycle, pedestrian and recreation facilities. In order to effectively address the full needs of the region and best provide connectivity and continuity between transportation and recreation amenities, representation from the following agencies and organizations is essential; member agency transportation and member agency parks and recreation, Prescott National Forest and Bureau of Land Management (BLM).

## Regional Emergency Access Routes

Due to concerns surrounding wildfires and other emergency events and regional land development activities and designs, the demand for investigation into emergency access routes is increasing. The Town of Prescott Valley and Yavapai County have both began investigation into potentials for expanded emergency access route networks. While the RTP has not considered these types of transportation assets, as they occur off the regionally significant network and are often located on privately held
properties. This plan suggests the continued investigation from all applicable member agencies into potential solutions. If a further formal investigation is warranted, it is recommended that a comprehensive regional study be explored to capture the entire CYMPO region's emergency access route needs.

### 7.3 Additional Project Scoping Considerations

### 7.3.1 Environmental

## Quality of life

One of Arizona's biggest economic generators is tourism, due in part to its vast natural landscapes and wide variety of outdoor recreation opportunities such as hiking, biking, rock climbing, camping and golfing. The CYMPO region is a popular destination for many of these activities for visitors and residents alike. Future development plats and transportation projects should consider natural resource management as a means of maintaining quality of life for both the region's residents and visitors. Considerations should include: 1) strategies to limit nature landscape impacts, 2) implement and promote various multimodal transportation options to maintain low levels of air, noise and light pollution, 3) account for rainwater collection and storage opportunities to sustain and recharge subsurface aquifers and 4) preserve/enhance wildlife habitat corridors in and around human developments.

## Wildlife \& Ecology

The CYMPO region is home to several animal and plant species that rely on the rural openness of the area for their habitat. Due to the disparities in size and varying habitats of the local flora and fauna, there is no one-size-fits-all mitigation measure that could be applied uniformly. Coordination with AZGFD, EMAC and other ecological stakeholder groups should begin early and continue throughout the scoping phase of any future development projects or transportation improvements to ensure proper mitigation measures are fully considered. CYMPO and AZGFD should collaborate with EMAC to further seek consideration of measures to;

1. maintain habitat permeability by adapting mitigation measures (overpasses, underpasses, funnel fencing) for recognized wildlife corridors,
2. recognize the role that ecological systems hold in providing green infrastructure for stormwater, management,
3. preservation and maintenance of native grass and tree species to prevent erosion,
4. mitigation of non-native invasive flora growth and
5. reduction of fire hazard.

Potential wildlife infrastructure should include consideration of the following:

1. Wildlife Crossing/Warning Signs

Wildlife crossing signs are the most basic type of infrastructure protecting wildlife, used on roadways at locations of known wildlife migratory routes or feeding areas to provide motorists with increased warning to the potential presence of wildlife on the roadway. This method is used to heighten motorist awareness to potential interactions. Wildlife crossing signs are more commonly used for larger wildlife, such as deer and elk, due to the higher potential collision severity, but can also be used to warn for the presence of other wildlife common to the specific location.

Potential Benefit - strategic implementation of wildlife crossing/warning signs can better alert motorists of potential wildlife encounters.

Approximate Cost - \$6,500 per location (1 sign for each direction)

## 2. Wildlife Funnel-Fencing

Wildlife fencing is used as a semi-permeable barrier that runs parallel along a roadway's right-ofway. This infrastructure is used to direct wildlife away from roadways and funnel towards constructed crossing locations. Depending on design, fencing is moderately effective in keeping larger species off the road. Some of these larger species can damage the fencing over time, reducing its effectiveness and requiring periodic maintenance attention.

Successful implementation of this infrastructure can reduce vehicle-wildlife collisions and when used in conjunction with structured crossing can facilitate better habitat connectivity. Fence design considerations account for sufficient opening allowance for effective crossing, proper construction material selection and numerous other factors in order to effectively channel wildlife, prevent wildlife injury and allowing adequate escape options for wildlife within the roadway right-of-way.

Potential Benefit - strategic implementation of fencing can reduce wildlife collision by up to $90 \%$ depending on the before-after conditions

Approximate Cost - \$500,000 - \$750,000 per mile
3. Wildlife Detection System

Wildlife detection systems use cameras and/or sensors to detect the presence of wildlife within roadway corridor right-of-way. These sensors are typically connected to dynamically activate warning signs, including a flashing beacon to indicate the presence of wildlife ahead. Alternatively, the system can activate higher intensity roadway lighting to increase visibility during low lighting conditions for motorists when wildlife is present. This system requires the precise location of both the sensors as well as the signs to effectively warn motorists. These warning systems therefore require specific placement at high crossing locations and can be supplemented with additional infrastructure, such as fencing and wildlife crosswalk electrified mats. These electrified mats are installed perpendicular to the road to ensure wildlife complete the entire crossing and do not become trapped within the roadway right-of-way.

Potential Benefit - provides location-specific enhanced warning to motorists of active wildlife crossings in the roadway.

Approximate Cost -
\$350,000 per crossing location (Upgrading existing crossing)
$\$ 1,000,000-1,500,000$ (Implement new crossing, new fencing and new detection system)
4. Grade-Separated Wildlife Crossings

Grade-separated wildlife crossings, as shown in Figure 62, can be implemented as either an underpass or an overpass, allowing wildlife to safely cross below or above the roadway corridor respectively. Grade-separated crossings can be implemented to benefit both large and small wildlife species, with separate height and design specifications. A critical component to the success of a grade-separated crossing is the proper placement at natural migratory crossing locations and the use of wildlife fencing in order to effectively channel the targeted wildlife to the crossing infrastructure. Additional cost savings can be realized for underpass crossings that are constructed or retrofitted at locations with terrain that warrant bridges/culverts.

Potential Benefit - strategic implementation of grade-separated wildlife crossings can reduce wildlife collision by upwards of $80 \%$ depending on the before-after conditions

Approximate Cost - $\$ 600,000-\$ 10,000,000$
Figure 62 - Grade-Separate Wildlife Crossing Example


## Water

CYMPO and its member agencies should consider water scarcity when pursuing implementation of new transportation facilities. Central Yavapai County's discharge to recharge ratio is currently below sustainable levels for its current urbanized areas. Depletion of underground water supplies could lead to wells and streams drying up, the water tables lowering and the collapse of riparian areas. Future projects should consider design options to prevent water loss and improve water recharge levels. Potential design elements for consideration include harvesting rainwater and gray water in tanks and dry wells to replenish underground water supplies and implementing sustainable landscaping around transportation corridors to reduce water consumption and erosion.

### 7.3.2 Multi-modal

As indicated in Sections 7.2 and 7.3.1, the CYMPO region is uniquely located amongst multiple on- and off-network bicycle and pedestrian facilities, including but not limited to bicycle lanes, sidewalks, multi-use paths, unpaved paths and hiking paths and trails.

Beyond the specific on-network transportation facilities, it is important that consideration of and access to existing, future and potential off-network paths and trails, such as Prescott's Mile-High Trail Network, Prescott Valley's trails and Urban Pathways and the Sun Corridor Trail network's proposed extension through the CYMPO region. These off-network facilities enable bicycle and pedestrian connectivity largely separated from vehicular traffic and provide both recreational and commute opportunities to users.

In order to promote the use and accessibility of multimodal transportation modes throughout the region, future development and transportation scoping should consider the following where applicable:

- support placement of schools, employment centers and retail in proximity to residential areas to encourage walking, bicycling and transit use,
- require submittal of pedestrian and bicycle circulations plans as elements of Traffic Impact Analysis required for new development,
- encourage developers to include both on- and off-network bicycle and pedestrian facilities,
- encourage the acquisition and development of off-street multi-use routes along creeks, drainages, utility easements and through parks and open space,
- where feasible, retrofit existing roadways to provide multi-modal facilities,
- where feasible, retrofit existing and/or propose future culverts/drainage structures to be utilized as grade separated multimodal crossings, and
- develop ancillary facilities such as bus turnouts and park and ride lots to reduce traffic volumes and offer alternative means of travel as public transit opportunities expand.


### 7.4 Funding Strategies

This section reviews all existing funding sources that are utilized by CYMPO and respective CYMPO member agencies. Additionally, this section outlines potential alternative funding sources available to pursue from CYMPO and respective CYMPO member agencies

### 7.4.1 Federal Revenue \& Funding Sources

## Surface Transportation Block Grant (STBG) Funds

Surface Transportation Block Grant (STBG) funds arose from the FAST Act which consolidated and replaced numerous former programs from MAP-21, including the former Surface Transportation Program (STP). STBG is a flexible federal-aid funding program that allows for a broad range of surface transportation capital improvements, including but not limited to roadway, bridge, safety, intelligent transportation systems, transit, airport access, vanpool and bicycle and pedestrian facilities. Funding is eligible for use on all roadways classified above local and rural minor collector.

The former Transpiration Alternatives Program (TA/TAP) is now included within the STBG as a dedicated set-aside funding element of the program. Additionally, bicycle and pedestrian facility additions and/or improvements are eligible for funding.

CYMPO receives an estimated $\$ 650,000$ in STBG funds annually, making up the primary regularly distributed funding source directly to CYMPO for use towards design and construction funding.

## Highway Safety Improvement Program (HSIP)

The HSIP program began as part of the former MAP-21 legislation and has continued since the inception of the FAST Act as a funding source allocated to respective state departments of transportation for use to specifically address transportation safety needs. The HSIP program specifically emphasizes funding countermeasures addressing fatal and serious injury crashes in accordance to the Strategic Highway Safety Plan (SHSP). Whereas the focus of fund distribution is into capital safety improvements, up to 5 percent of annual available funds are eligible to fund non-infrastructure projects such as roadway safety audits (RSA). Capital infrastructure investments can be applied for at either a single-location project or a systemic project. Systemic projects represent a systemic safety concern occurring at multiple locations within the applicant's jurisdiction. All awarded systemic project applications are limited to a total annual awarded amount of no more than $20 \%$ of all available funds.

ADOT is responsible for the distribution of available funds, which is conducted through a statewide competitive application process, open to all government levels. As a competitively funded program, project selection is based primarily on a benefit-cost (B/C) ratio. The minimum eligible $B / C$ ratio is no less than 2.5.

The HSIP program has been amended to enable a broader eligibility of fundable projects. In Fiscal Year $2019 \$ 35$ million were available for distribution. However, annual total funding available fluctuates. As stated in the Fiscal Year 2019 call for projects, minimum project costs were reduced to just $\$ 5,000$. HSIP
funds require a 5.7 percent local funding match of the total application cost derived from non-federal sources.

In previous years the HSIP call for projects has been announced in January and all applications are required for submittal in May.

## National Highway Freight Program

In the 2017 published Arizona State Freight Plan, 12.56 miles of SR 69 were designated as part of the Critical Urban Freight Corridor (CUFC) within Arizona. The 12.56 miles of SR 69, between SR 169 to the SR 89 Junction within the City of Prescott, represents the only CUFC mileage outside of the Phoenix and Tucson metropolitan areas. Furthermore, SR 69 between I-17 and the eastern CYMPO Boundary is also designated as part of the Critical Rural Freight Corridor (CRFC), which is within of the broader CYMPO Planning Area. These designations put theses roadway segments on the National Highway Freight Network (NHFN) and are thereby eligible for National Highway Freight Program (NHFP) funds as outlined in the FAST Act.

In November 2017, the FHWA approval of the Arizona State Freight Plan enabled ADOT to use up to nearly $\$ 96$ million in NHFP funding for freight projects along the NHFN directly allocated from the FAST Act. Unfortunately, this funding has currently been allocated to higher need corridors throughout the state of Arizona. At this time, no additional NHFN funding has been identified. In the event of the FAST Act renewal, additional funding may become available.

### 7.4.2 State Funding Sources

## Highway User Revenue Fund (HURF)

HURF is a formula distribution revenue source which is collected and distributed by the state of Arizona. HURF is comprised of gasoline and use-fuel taxes, motor-carrier taxes, vehicle-license taxes, motor vehicle registration fees and other miscellaneous fees. HURF funds represent the largest non-federal funding source for roadway construction and improvements. HURF revenues are regularly distributed across cities, towns, counties and the State Highway Fund, which funds state transportation improvements.

## Arizona Legislative \& Gubernatorial Discretionary Budget

Annually, the Arizona legislature and subsequently the Arizona Governor have the discretion to allocate surplus state funding towards a variety of different state department funds and/or specific projects. Historically, a portion of these funds have been allocated towards specific transportation expansion projects across the state. Considering the limited statewide expansion funding mechanism, these directly allocated funds provide an opportunity for large budget funding opportunities.

### 7.4.3 Local \& Regional Funding Sources

## City of Prescott Transaction Privilege Tax

On the August 25, 2015 City of Prescott voters voted to approve an increase to the existing September 1, 2009 approved three-quarters percent transaction privilege tax to a full percent transaction privilege tax (sales tax) dedicated to streets and roads for twenty years beginning January 1, 2016. The entirety of this tax's proceeds is dedicated towards planning, design, right-of-way acquisition and improvements and other costs associated with the construction, rehabilitation and maintenance of City streets, highways, alleys and roadways; including but not limited to curbs, gutters, drainage, bridges, sidewalks, shoulders and medians. The accumulation of such tax proceeds to be in accordance with Article IX, Section 20 of the Arizona State Constitution

## Town of Prescott Valley Transaction Privilege Tax

In June 2002 the Town of Prescott Valley formally dedicated one-third percent of the Town's total 2.83\% transition privilege tax (sales tax) towards funding capital improvements to major arterial routes within the Town. This funding mechanism is dedicated specifically for use on major street improvements for Robert Road, Navajo Drive, Lakeshore Drive and Viewpoint Drive only and cannot be used for additional transportation maintenance and/or improvements outside of that qualification.

Additionally, beginning on January 1, 2016, one-half percent of the Town's transition privilege tax is primarily allocated to street maintenance and public safety. While this funding is not explicitly dedicated, the existing budget allows for these funds to be used for additional construction and maintenance investments to the Town's roadway network.

## Yavapai County Half-Cent Sales Tax

Yavapai County utilizes a portion of the county-wide half-cent sales tax for roadway improvements to regional roads across the entirety of Yavapai County, within the CYMPO region and otherwise. While this funding is not explicitly dedicated, the existing budget allows for these funds to be used for additional transportation construction and maintenance investments into the County's vast roadway network.

## Development Impact Fees

The Town of Prescott Valley maintains an Impact Fee Fund, funded by the impact fees collected by the town upon building permit issuance. A report was completed on February 13, 2014 and included an Infrastructure Improvement Plan (IIP) table of roadway improvement projects. A Minor Amendment to the IIP projects was updated in 2018. This fund can be used by multiple sources including Public Works, Police, Library and Parks and Recreation Departments.

The City of Prescott similarly collects impact fees from private developers that are used to offset costs associated with city infrastructure investments required to support respective developments. Impact fees are determined based on type of development as well as size and can extend across various investments categories, including streets.

### 7.4.4 Competitive Grant Funding Sources

In addition to existing funding sources that CYMPO and/or CYMPO member agencies are actively using or pursuing use of, in the case of competitive funding sources, there are several alternative funding sources available for to pursue. Due to the limited funding available for large infrastructure projects, particularly roadway widening and new roadways, identification of alternative funding is increasingly important to be able to fund investments for existing and emerging needs.

The Better Utilizing Investments to Leverage Development (BUILD), Infrastructure for Rebuilding America (INFRA) and Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) federal grant programs each provide large available funding awards distributed through a competitive application process, typically occurring annually. These opportunities are eligible to CYMPO and/or CYMPO member agencies to pursue to aid in funding larger infrastructure improvements. Pursuit of competitive discretionary funding sources is an opportunity for CYMPO and CYMPO member agencies to leverage existing funds for even greater benefit to the regional transportation system. In addition to the below highlighted grant programs below, there are various other federal and non-federal grant programs in which CYMPO and/or CYMPO member agencies could pursue funding awards.

## BUILD Grant

The BUILD grant program is a discretionary funding source allocated by the USDOT with the intent of funding projects that build and/or repair critical surface transportation needs. Formerly known as the

Transportation Investment Generating Economic Recovery (TIGER) program, the BUILD program transitioned to its current name in Fiscal Year 2018. In Fiscal Year 2019 USDOT awarded nearly $\$ 900$ million dollars in funding awards for 55 projects.

Presently, the BUILD program is dedicated to the effort of rebalancing investments between urban and rural locations with no more than 50 percent of available funds being distributed toward urban and rural projects respectively. In Fiscal Year 2019 the maximum eligible grant award was $\$ 25$ million, with no more than $\$ 90$ million in awards be allocated to the same state. Urban projects have a minimum eligible grant award of $\$ 5$ million. However, rural designated projects do not have a minimum eligible grant award value.

The BUILD program allows for project applications to seek funding for activities associated with surface transportation capital projects, such as highway, bridge or other roadway, public transportation, rail, ports and intermodal projects. Up to $\$ 15$ million may be dedicated towards planning and design project applications, however is not considered competitive for funding. Project eligibility indicates a minimum non-grant funded match of 20 percent of the total application cost for urban locations, as identified as a location with greater than 50,000 population. The on-grant funded match for rural applications may be reduced or removed per the discretion of the USDOT Secretary. All matching funds must derive from nonfederal funding sources.

In previous years the Notice of Funding Opportunity (NOFO) has been announced in April and all applications are required for submittal in July.

## INFRA Grant

The INFRA grant program is a discretionary funding source allocated by the USDOT with the intent of funding projects that address critical needs along highways and bridges on the NHS or NHFN. In Fiscal Year 2019 USDOT awarded nearly $\$ 856$ million dollars in funding award for 20 projects amounting to nearly $\$ 4.4$ billion total estimated costs. While the program focuses on large infrastructure investments, the program is specifically designed to provide opportunity for both urban and rural classifications as well as across all government/agency levels. The Fiscal Year 2019 award included awards to local municipalities, counties and a regional governmental entity in addition to state transportation departments.

This distribution across government/agency levels and rural/urban location is specifically outlined in the program. Large projects are defined as projects greater than $\$ 25$ million whereas small projects are defined as less than $\$ 5$ million. The program identifies that for each year of award, 10 percent of the total available award funding is reserved for small projects. Furthermore, the program outlines that 25 percent of all available award funding must be awarded to rural projects.

The INFRA program allows for project applications to seek funding for activities associated with project construction as well as development phase activities, such as planning, environmental and design. However, project funding requests must result in construction, thereby prohibiting funding awards for development phases alone. Project eligibility indicates a minimum non-grant funded match of 40 percent of the total application cost. Furthermore, no more than half of the matching funds can be derived from additional federal funding sources, such as STBG funds. Therefore, at least 20 percent of all application cost's must be derived from state of locally sourced funds.

In previous years the NOFO has been announced in December and all applications are required for submittal in March.

## ATCMTD Grant

The ATCMTD grant program is a discretionary funding source allocated by the USDOT with the intent of funding projects that develop and deploy advanced transportation technologies focused on improving safety, efficiency, system performance and return-on-investment (ROI). This program was newly established as part of the FAST Act and has undergone an annual competitive application process since 2016. The ATCMTD annual award is $\$ 60$ million for the duration of the extent of the FAST Act authorization, through 2020.

The ATCMTD program is eligible to state governments, local governments (and respective political subdivision), transit agencies and/or MPOs representing populations of greater than 200,000, or research/academic institution consortiums. It is important to note that under the present program guidelines, CYMPO does not currently meet the population eligibility requirements to be the primary project applicant. However, one of multiple CYMPO member agency may pursue this funding. Additionally, CYMPO may propose to partner with the state of Arizona and/or other eligible MPOs in a joint application effort.

Currently, the program maximum funding award is capped at no greater than $\$ 12$ million dollars for an individual applicant. Currently, there is no stated minimum eligible project cost. The ATCMTD program does however require a non-grant funded match of 50 percent of the total application cost derived from non-federal sources.

The ATCMTD program allows for a wide range of technology deployments within the categories of advanced transportation and congestion management. Projects that implement new or cutting-edge technologies or innovative uses of existing technologies are viewed as most competitive for funding under this program.

In previous years the NOFO has been announced in June and all applications are required for submittal in August.

Appendix A - Title VI \& Environmental Justice

Limited English Proficiency

| CYMPO Census Tracts | $\begin{aligned} & \text { Census Tract } \\ & 2.02 \end{aligned}$ |  | $\begin{gathered} \hline \text { Census Tract } \\ 2.03 \end{gathered}$ |  | $\begin{gathered} \hline \text { Census Tract } \\ 2.04 \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% | \# | \% | \# | \% |
| Estimate Total Population: | 7,307 | - | 5,286 | - | 6,667 | - |
| Total Individuals: - Speak English less than 'very well' | 155 | 2.12\% | 162 | 3.06\% | 349 | 5.23\% |
| Total Individuals: - Speak only English | 6,753 | 92.42\% | 4,996 | 94.51\% | 6,187 | 92.80\% |
| Spanish or Spanish Creole |  |  |  |  |  |  |
| Spanish or Spanish Creole: - Speak English less than "very well" | 132 | 1.81\% | 162 | 3.06\% | 293 | 4.39\% |
| Percentage of non-English speakers that only speak Spanish or Spanish Creole |  |  |  |  | 84\% |  |
| All other languages |  |  |  |  |  |  |
| French (incl. Patois, Cajun): - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| French Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Italian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 36 | 0.54\% |
| Portuguese or Portuguese Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| German: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Yiddish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other West Germanic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Scandinavian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Greek: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Russian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Polish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Serbo-Croatian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Slavic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Armenian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Persian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Gujarati: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hindi: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Urdu: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indic languages: - $\begin{gathered}\text { Speak English less than "very } \\ \text { well" }\end{gathered}$ | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indo-European languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Chinese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Japanese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Korean: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 20 | 0.30\% |
| Mon-Khmer, Cambodian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hmong: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Thai: - Speak English less than "very well" | 23 | 0.31\% | 0 | 0.00\% | 0 | 0.00\% |
| Laotian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Vietnamese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Asian languages: - $\begin{gathered}\text { Speak } \\ \text { well" }\end{gathered}$ | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Tagalog: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Pacific Island languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Navajo: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Native North American languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hungarian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Arabic: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hebrew: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| African languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other and unspecified languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |

Limited English Proficiency (cont'd)

| CYMPO Census Tracts | Census Tract3 |  | $\begin{gathered} \hline \text { Census Tract } \\ 4.01 \end{gathered}$ |  | Census Tract4.02 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% | \# | \% | \# | \% |
| Estimate Total Population: | 5,735 |  | 5,654 |  | 4,832 |  |
| Total Individuals: - Speak English less than 'very well' | 164 | 2.86\% | 60 | 1.06\% | 60 | 1.24\% |
| Total Individuals: - Speak only English | 4,980 | 86.84\% | 5,013 | 88.66\% | 4,556 | 94.29\% |
| Spanish or Spanish Creole |  |  |  |  |  |  |
| Spanish or Spanish Creole: - Speak English less than "very well" | 64 | 1.12\% | 33 | 0.58\% | 16 | 0.33\% |
| Percentage of non-English speakers that only speak Spanish or Spanish Creole |  |  |  |  |  |  |
| All other languages |  |  |  |  |  |  |
| French (incl. Patois, Cajun): - Speak English less than "very well" | 22 | 0.38\% | 0 | 0.00\% | 0 | 0.00\% |
| French Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Italian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 13 | 0.27\% |
| Portuguese or Portuguese Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| German: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Yiddish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other West Germanic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Scandinavian languages: - Speak English less than "very well" | 14 | 0.24\% | 0 | 0.00\% | 0 | 0.00\% |
| Greek: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Russian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Polish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Serbo-Croatian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Slavic languages: -$-\begin{array}{l}\text { Speak } \\ \text { well" }\end{array}$ | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Armenian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Persian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Gujarati: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hindi: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Urdu: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indic languages: - Speak English less than "very | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indo-European languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Chinese: - Speak English less than "very well" | 0 | 0.00\% | 12 | 0.21\% | 0 | 0.00\% |
| Japanese: - Speak English less than "very well" | 0 | 0.00\% | 15 | 0.27\% | 0 | 0.00\% |
| Korean: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 21 | 0.43\% |
| Mon-Khmer, Cambodian: - Speak English less than "very well" | 3 | 0.05\% | 0 | 0.00\% | 0 | 0.00\% |
| Hmong: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Thai: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Laotian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Vietnamese: - Speak English less than "very well" | 33 | 0.58\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Asian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Tagalog: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Pacific Island languages: - Speak English less than "very well" | 12 | 0.21\% | 0 | 0.00\% | 0 | 0.00\% |
| Navajo: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Native North American languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 10 | 0.21\% |
| Hungarian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Arabic: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hebrew: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| African languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other and unspecified languages: - Speak English less than "very well" | 16 | 0.28\% | 0 | 0.00\% | 0 | 0.00\% |

Limited English Proficiency (cont'd)

| CYMPO Census Tracts | $\begin{gathered} \hline \text { Census Tract } \\ 5 \end{gathered}$ |  | Census Tract$6.05$ |  | Census Tract$6.06$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% | \# | \% | \# | \% |
| Estimate Total Population: | 5,494 | - | 8,951 | - | 5,594 | - |
| Total Individuals: - Speak English less than 'very well' | 124 | 2.26\% | 554 | 6.19\% | 455 | 8.13\% |
| Total Individuals: - Speak only English | 4,609 | 83.89\% | 7,650 | 85.47\% | 4,400 | 78.66\% |
| Spanish or Spanish Creole |  |  |  |  |  |  |
| Spanish or Spanish Creole: - Speak English less than "very well" | 69 | 1.26\% | 539 | 6.02\% | 440 | 7.87\% |
| Percentage of non-English speakers that only speak Spanish or Spanish Creole |  |  | 97\% |  | 97\% |  |
| All other languages |  |  |  |  |  |  |
| French (incl. Patois, Cajun): - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| French Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Italian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Portuguese or Portuguese Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| German: - Speak English less than "very well" | 55 | 1.00\% | 0 | 0.00\% | 15 | 0.27\% |
| Yiddish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other West Germanic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Scandinavian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Greek: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Russian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Polish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Serbo-Croatian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Slavic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Armenian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Persian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Gujarati: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hindi: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Urdu: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indo-European languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Chinese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Japanese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Korean: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Mon-Khmer, Cambodian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hmong: - Speak English less than "very well" | 0 | 0.00\% | 14 | 0.16\% | 0 | 0.00\% |
| Thai: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Laotian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Vietnamese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Asian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Tagalog: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Pacific Island languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Navajo: - Speak English less than "very well" | 0 | 0.00\% | 1 | 0.01\% | 0 | 0.00\% |
| Other Native North American languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hungarian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Arabic: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hebrew: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| African languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other and unspecified languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |

Limited English Proficiency (cont'd)

| CYMPO Census Tracts | Census Tract 6.07 |  | Census Tract$6.08$ |  | Census Tract$6.09$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% | \# | \% | \# | \% |
| Estimate Total Population: | 5,887 | - | 3,372 | - | 4,705 | - |
| Total Individuals: - Speak English less than 'very well' | 210 | 3.57\% | 74 | 2.19\% | 329 | 6.99\% |
| Total Individuals: - Speak only English | 5,383 | 91.44\% | 3,098 | 91.87\% | 3,687 | 78.36\% |
| Spanish or Spanish Creole |  |  |  |  |  |  |
| Spanish or Spanish Creole: - Speak English less than "very well" | 0 | 0.00\% | 74 | 2.19\% | 319 | 6.78\% |
| Percentage of non-English speakers that only speak Spanish or Spanish Creole |  |  |  |  | 97\% |  |
| All other languages |  |  |  |  |  |  |
| French (incl. Patois, Cajun): - Speak English less than "very well" | 43 | 0.73\% | 0 | 0.00\% | 0 | 0.00\% |
| French Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Italian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 10 | 0.21\% |
| Portuguese or Portuguese Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| German: - Speak English less than "very well" | 14 | 0.24\% | 0 | 0.00\% | 0 | 0.00\% |
| Yiddish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other West Germanic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Scandinavian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Greek: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Russian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Polish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Serbo-Croatian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Slavic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Armenian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Persian: - Speak English less than "very well" | 80 | 1.36\% | 0 | 0.00\% | 0 | 0.00\% |
| Gujarati: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hindi: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Urdu: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indo-European languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Chinese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Japanese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Korean: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Mon-Khmer, Cambodian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hmong: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Thai: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Laotian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Vietnamese: - Speak English less than "very well" | 42 | 0.71\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Asian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Tagalog: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Pacific Island languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Navajo: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Native North American languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hungarian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Arabic: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hebrew: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| African languages: - Speak English less than "very well" | 31 | 0.53\% | 0 | 0.00\% | 0 | 0.00\% |
| Other and unspecified languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |

Limited English Proficiency (cont'd)

| CYMPO Census Tracts | Census Tract$6.10$ |  | Census Tract 7 |  | Census Tract 8.01 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% | \# | \% | \# | \% |
| Estimate Total Population: | 3,996 | - | 3,416 | - | 3,589 | - |
| Total Individuals: - Speak English less than 'very well' | 251 | 6.28\% | 1 | 0.03\% | 89 | 2.48\% |
| Total Individuals: - Speak only English | 3,463 | 86.66\% | 3,246 | 95.02\% | 3,142 | 87.55\% |
| Spanish or Spanish Creole |  |  |  |  |  |  |
| Spanish or Spanish Creole: - Speak English less than "very well" | 211 | 5.28\% | 1 | 0.03\% | 74 | 2.06\% |
| Percentage of non-English speakers that only speak Spanish or Spanish Creole | 84\% |  |  |  |  |  |
| All other languages |  |  |  |  |  |  |
| French (incl. Patois, Cajun): - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 15 | 0.42\% |
| French Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Italian: - Speak English less than "very well" | 0 | 0.21\% | 0 | 0.00\% | 0 | 0.00\% |
| Portuguese or Portuguese Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| German: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Yiddish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other West Germanic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Scandinavian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Greek: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Russian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Polish: - Speak English less than "very well" | 12 | 0.30\% | 0 | 0.00\% | 0 | 0.00\% |
| Serbo-Croatian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Slavic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Armenian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Persian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Gujarati: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hindi: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Urdu: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indo-European languages: - Speak English less than "very well" | 22 | 0.55\% | 0 | 0.00\% | 0 | 0.00\% |
| Chinese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Japanese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Korean: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Mon-Khmer, Cambodian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hmong: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Thai: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Laotian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Vietnamese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Asian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Tagalog: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Pacific Island languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Navajo: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Native North American languages: - Speak English less than "very well" | 6 | 0.15\% | 0 | 0.00\% | 0 | 0.00\% |
| Hungarian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Arabic: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hebrew: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| African languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other and unspecified languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |

Limited English Proficiency (cont'd)

| CYMPO Census Tracts | $\begin{gathered} \hline \text { Census Tract } \\ 8.02 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \text { Census Tract } \\ 9 \end{gathered}$ |  | $\begin{gathered} \hline \text { Census Tract } \\ 10.01 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% | \# | \% | \# | \% |
| Estimate Total Population: | 3,285 | - | 4,481 | - | 4,138 | - |
| Total Individuals: - Speak English less than 'very well' | 640 | 1.22\% | 66 | 1.47\% | 60 | 1.45\% |
| Total Individuals: - Speak only English | 3,116 | 94.86\% | 4,153 | 92.68\% | 3,972 | 95.99\% |
| Spanish or Spanish Creole |  |  |  |  |  |  |
| Spanish or Spanish Creole: - Speak English less than "very well" | 29 | 0.88\% | 53 | 1.18\% | 43 | 1.04\% |
| Percentage of non-English speakers that only speak Spanish or Spanish Creole |  |  |  |  |  |  |
| All other languages |  |  |  |  |  |  |
| French (incl. Patois, Cajun): - Speak English less than "very well" | 0 | 0.00\% | 3 | 0.07\% | 17 | 0.41\% |
| French Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Italian: - Speak English less than "very well" | 11 | 0.33\% | 0 | 0.00\% | 0 | 0.00\% |
| Portuguese or Portuguese Creole: - Speak English | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| German: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Yiddish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other West Germanic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Scandinavian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Greek: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Russian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Polish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Serbo-Croatian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Slavic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Armenian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Persian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Gujarati: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hindi: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Urdu: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indo-European languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Chinese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Japanese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Korean: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Mon-Khmer, Cambodian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hmong: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Thai: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Laotian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Vietnamese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Asian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Tagalog: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Pacific Island languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Navajo: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Native North American languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hungarian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Arabic: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hebrew: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| African languages: - Speak English less than "very | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other and unspecified languages: - Speak English less than "very well" | 0 | 0.00\% | 10 | 0.22\% | 0 | 0.00\% |

## Limited English Proficiency (cont'd)

| CYMPO Census Tracts | Census Tract$10.02$ |  | Census Tract 11.01 |  | Census Tract 11.02 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% | \# | \% | \# | \% |
| Estimate Total Population: | 3,339 | - | 4,158 | - | 3,906 | - |
| Total Individuals: - Speak English less than 'very well' | 12 | 0.36\% | 28 | 0.67\% | 13 | 0.33\% |
| Total Individuals: - Speak only English | 3,225 | 96.59\% | 3,918 | 94.23\% | 3,788 | 96.98\% |
| Spanish or Spanish Creole |  |  |  |  |  |  |
| Spanish or Spanish Creole: - Speak English less than "very well" | 12 | 0.36\% | 0 | 0.00\% | 0 | 0.00\% |
| Percentage of non-English speakers that only speak Spanish or Spanish Creole |  |  |  |  |  |  |
| All other languages |  |  |  |  |  |  |
| French (incl. Patois, Cajun): - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| French Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Italian: - Speak English less than "very well" | 0 | 0.00\% | 24 | 0.58\% | 0 | 0.00\% |
| Portuguese or Portuguese Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| German: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Yiddish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other West Germanic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 13 | 0.33\% |
| Scandinavian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Greek: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Russian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Polish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Serbo-Croatian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Slavic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Armenian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Persian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Gujarati: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hindi: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Urdu: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indo-European languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Chinese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Japanese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Korean: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Mon-Khmer, Cambodian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hmong: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Thai: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Laotian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Vietnamese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Asian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Tagalog: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Pacific Island languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Navajo: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Native North American languages: - Speak English less than "very well" | 0 | 0.00\% | 4 | 0.10\% | 0 | 0.00\% |
| Hungarian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Arabic: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hebrew: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| African languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other and unspecified languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |

Limited English Proficiency (cont'd)

| CYMPO Census Tracts | Census Tract 12 |  | Census Tract 15 |  | Census Tract 19 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% | \# | \% | \# | \% |
| Estimate Total Population: | 6,051 | - | 6,697 | - | 13,923 | - |
| Total Individuals: - Speak English less than 'very well' | 107 | 1.77\% | 116 | 1.73\% | 405 | 2.91\% |
| Total Individuals: - Speak only English | 5,781 | 95.54\% | 6,346 | 94.76\% | 12,734 | 91.46\% |
| Spanish or Spanish Creole |  |  |  |  |  |  |
| Spanish or Spanish Creole: - Speak English less than "very well" | 68 | 1.12\% | 116 | 1.73\% | 372 | 2.67\% |
| Percentage of non-English speakers that only speak Spanish or Spanish Creole |  |  |  |  |  |  |
| All other languages |  |  |  |  |  |  |
| French (incl. Patois, Cajun): - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| French Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Italian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Portuguese or Portuguese Creole: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| German: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Yiddish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other West Germanic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Scandinavian languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Greek: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Russian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Polish: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Serbo-Croatian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Slavic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Armenian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Persian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Gujarati: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hindi: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Urdu: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indic languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Indo-European languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Chinese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 33 | 0.24\% |
| Japanese: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Korean: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Mon-Khmer, Cambodian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hmong: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Thai: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Laotian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Vietnamese: - Speak English less than "very well" | 5 | 0.08\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Asian languages: - Speak English less than "very well" | 34 | 0.56\% | 0 | 0.00\% | 0 | 0.00\% |
| Tagalog: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Pacific Island languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Navajo: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other Native North American languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hungarian: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Arabic: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Hebrew: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| African languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |
| Other and unspecified languages: - Speak English less than "very well" | 0 | 0.00\% | 0 | 0.00\% | 0 | 0.00\% |

Title VI Summary

| CYMPO <br> Census | Limited English Proficiency (LEP) ${ }^{1}$ |  |  | Minority Populations ${ }^{2}$ |  |  | Below Poverty Line ${ }^{2}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Est. Total | Individuals that speak English < 'very well' | \% of <br> Total | Est. <br> Total | Minority Individuals | \% of <br> Total | Est. Total | Individuals Below the Poverty Line | \% of <br> Total |
| $\begin{aligned} & \text { Census } \\ & \text { Tract } 2.02 \end{aligned}$ | 7,307 | 155 | 2.12\% | 8,285 | 1,463 | 17.66\% | 8,215 | 791 | 9.63\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 2.03 \end{aligned}$ | 5,286 | 162 | 3.06\% | 5,393 | 539 | 9.99\% | 5,377 | 625 | 11.62\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 2.04 \end{aligned}$ | 6,667 | 349 | 5.23\% | 6,777 | 1,601 | 23.62\% | 6,777 | 1,118 | 16.50\% |
| Census <br> Tract 3 | 5,735 | 164 | 2.86\% | 6,250 | 1,103 | 17.65\% | 5,198 | 716 | 13.77\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 4.01 \end{aligned}$ | 5,654 | 60 | 1.06\% | 6,170 | 636 | 10.31\% | 6,170 | 611 | 9.90\% |
| $\begin{aligned} & \text { Census } \\ & \text { Tract } 4.02 \end{aligned}$ | 4,832 | 60 | 1.24\% | 4,941 | 352 | 7.12\% | 4,941 | 260 | 5.26\% |
| $\begin{aligned} & \text { Census } \\ & \text { Tract } 5 \end{aligned}$ | 5,494 | 124 | 2.26\% | 5,681 | 714 | 12.57\% | 5,681 | 661 | 11.64\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 6.04 \end{aligned}$ | 4,795 | 108 | 2.25\% | 5,446 | 1,126 | 20.68\% | 5,437 | 691 | 12.71\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 6.05 \end{aligned}$ | 8,951 | 554 | 6.19\% | 9,967 | 2,661 | 26.70\% | 9,634 | 1,517 | 15.75\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 6.06 \end{aligned}$ | 5,594 | 455 | 8.13\% | 6,387 | 2,448 | 38.33\% | 6,232 | 1,559 | 25.02\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 6.07 \end{aligned}$ | 5,887 | 210 | 3.57\% | 6,478 | 1,040 | 16.05\% | 6,478 | 693 | 10.70\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 6.08 \end{aligned}$ | 3,372 | 74 | 2.19\% | 3,954 | 948 | 23.98\% | 3,945 | 363 | 9.20\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 6.09 \end{aligned}$ | 4,705 | 329 | 6.99\% | 5,108 | 1,688 | 33.05\% | 5,039 | 1,400 | 27.78\% |
| $\begin{aligned} & \text { Census } \\ & \text { Tract } 6.10 \end{aligned}$ | 3,996 | 251 | 6.28\% | 3,901 | 811 | 20.79\% | 3,901 | 878 | 22.51\% |
| Census <br> Tract 7 | 3,416 | 1 | 0.03\% | 3,679 | 380 | 10.33\% | 3,660 | 497 | 13.58\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 8.01 \end{aligned}$ | 3,589 | 89 | 2.48\% | 3,424 | 556 | 16.24\% | 3,424 | 363 | 10.60\% |
| $\begin{aligned} & \hline \text { Census } \\ & \text { Tract } 8.02 \end{aligned}$ | 3,285 | 40 | 1.22\% | 3,392 | 300 | 8.84\% | 3,371 | 375 | 11.12\% |
| Census <br> Tract 9 | 4,481 | 66 | 1.47\% | 4,690 | 913 | 19.47\% | 4,146 | 1,232 | 29.72\% |
| Census <br> Tract $10.01$ | 4,138 | 60 | 1.45\% | 4,235 | 586 | 13.84\% | 4,128 | 690 | 16.72\% |
| Census <br> Tract $10.02$ | 3,339 | 12 | 0.36\% | 3,373 | 509 | 15.09\% | 3,267 | 476 | 14.57\% |
| Census <br> Tract <br> 11.01 | 4,158 | 28 | 0.67\% | 4,326 | 133 | 3.07\% | 4,326 | 563 | 13.01\% |
| Census <br> Tract <br> 11.02 | 3,906 | 13 | 0.33\% | 4,163 | 359 | 8.62\% | 4,127 | 463 | 11.22\% |
| Census <br> Tract 12 | 6,051 | 107 | 1.77\% | 5,737 | 686 | 11.96\% | 5,717 | 366 | 6.40\% |
| Census <br> Tract 15 | 6,697 | 116 | 1.73\% | 7,486 | 879 | 11.74\% | 7,024 | 1,114 | 15.86\% |

Title VI Summary (cont'd)

| CYMPO Census | Limited English Proficiency (LEP) ${ }^{1}$ |  |  | Minority Populations ${ }^{2}$ |  |  | Below Poverty Line ${ }^{2}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Est. Total | Individuals that speak English < 'very well' | \% of <br> Total | Est. <br> Total | Minority Individuals | $\% \text { of }$ <br> Total | Est. Total | Individuals Below the Poverty Line | \% of Total |
| Census <br> Tract 19 | 13,923 | 405 | 2.91\% | 14,411 | 2,065 | 14.33\% | 14,405 | 1,291 | 8.96\% |
| CYMPO Total | 135,258 | 3,992 | 2.95\% | 143,654 | 24,496 | 17.05\% | 140,620 | 19,313 | 13.73\% |
| County <br> Total | 206,720 | 7,359 | 3.56\% | 218,586 | 41,183 | 18.84\% | 214,690 | 31,512 | 14.68\% |
| Arizona Statewide | 6,208,093 | 570,709 | 9.19\% | 6,392,017 | 2,696,370 | 42.18\% | 5,079,022 | 808,260 | 15.91\% |

${ }^{1} 2015$ American Community Survey (5-Year Estimates)
${ }^{2} 2016$ American Community Survey (5-Year Estimates)

Appendix B - Regionally Significant Route Segmentation

Regionally Significant Route Segmentation

| Route | Segment \# | Beginning Intersection | Ending Intersection | Length |
| :---: | :---: | :---: | :---: | :---: |
| Fain Rd | Fain-1 | SR 69 | SR 89A / Robert Rd | 7.22 |
| Glassford Hill Rd | GlassfordHill-1 | SR 69 | S of Santa Fe Loop Rd | 2.25 |
|  | GlassfordHill -2 | S of Santa Fe Loop Rd | SR 89A | 1.41 |
| Gurley St | Gurley-1 | SR 89 | E of Mount Vernon Ave | 0.60 |
|  | Gurley-2 | E of Mount Vernon Ave | McCormick St | 0.63 |
|  | Gurley-3 | McCormick St | Thumb Butte Rd | 1.14 |
| Iron Springs Rd | IronSprings-1 | McCormick St | W of Williamson Valley Rd | 1.49 |
|  | IronSprings-2 | W of Williamson Valley Rd | West CYMPO Boundary | 2.14 |
| Lakeshore Dr | Lakeshore-1 | Glassford Hill Rd | E of Robert Rd/Tani Rd | 1.11 |
|  | Lakeshore-2 | E of Robert Rd/Tani Rd | Badger Rd | 2.14 |
|  | Lakeshore-3 | Badger Rd | Fain Rd | 1.19 |
| Montezuma St | Montezuma-1 | Whipple St | N of Sheldon St | 0.67 |
|  | Montezuma-2 | N of Sheldon St | S of Carleton St | 0.61 |
|  | Montezuma-3 | S of Carleton St | White Spar Rd | 0.41 |
| Mount Vernon Ave | MountVernon-1 | N of Moeller St | Senator Hwy | 0.82 |
| Outer Loop Rd | OuterLoop-1 | SR 89 | Reed Rd | 1.67 |
|  | OuterLoop-2 | Reed Rd | Williamson Valley Rd | 4.27 |
| Pioneer Pwky | Pioneer-1 | Williamson Valley Rd | W of Commerce Dr | 2.18 |
|  | Pioneer-2 | W of Commerce Dr | SR 89A | 2.33 |
| Prescott Lakes Pwky | PrescottLakes-1 | SR 69 | N of SR 89 | 2.37 |
|  | PrescottLakes-2 | N of SR 89 | Willow Lake Rd | 1.11 |
| Robert Rd | Robert-1 | SR 69 | N of Lakeshore Dr | 0.73 |
|  | Robert-2 | N of Lakeshore Dr | N of Manley Dr | 1.35 |
|  | Robert-3 | N of Manley Dr | SR 89A/Fain Rd | 1.79 |
| Rosser Rd | Rosser-1 | SR 89 | Willow Creek Rd | 2.74 |
| Senator Hwy | Senator-1 | Mount Vernon Ave | South CYMPO Boundary | 2.34 |
| Sheldon St | Sheldon-1 | SR 69 / SR 89 | E of Alarcon St | 0.63 |
|  | Sheldon-2 | E of Alarcon St | Montezuma St | 0.34 |
| Smoke Tree Ln | SmokeTree-1 | Prescott Lakes Pwky | Willow Creek Rd | 2.66 |
| SR 169 | 169-1 | SR 69 | East CYMPO Boundary | 2.44 |
| SR 69 | 69-1 | East CYMPO Boundary | E of Truwood Dr | 8.03 |
|  | 69-2 | E of Truwood Dr | Glassford Hill Rd | 2.04 |
|  | 69-3 | Glassford Hill Rd | W of Stoneridge Dr | 0.97 |
|  | 69-4 | W of Stoneridge Dr | E of Sunrise Blvd | 2.22 |
|  | 69-5 | E of Sunrise Blvd | W of Prescott Lakes Pkwy | 1.96 |
|  | 69-6 | W of Prescott Lakes Pkwy | Sheldon St | 2.21 |
| SR 89 | 89-1 | Sheldon St | S of Prescott Lakes Pkwy | 2.52 |
|  | 89-2 | S of Prescott Lakes Pkwy | S of SR 89A | 4.19 |
|  | 89-3 | S of SR 89A | N of Road 1S | 7.90 |
|  | 89-4 | N of Road 1 S | Road 5 N | 7.65 |
|  | 89-5 | Road 5 N | North CYMPO Boundary | 7.47 |
| SR 89A | 89A-1 | SR 89 | Robert Rd | 7.11 |
|  | 89A-2 | Robert Rd | East CYMPO Boundary | 7.07 |
| Whipple St | Whipple-1 | Miller Valley Rd | Montezuma St | 0.88 |
| White Spar Rd | WhiteSpar-1 | Montezuma St | South CYMPO Boundary | 1.76 |
| Williamson Valley Rd | WilliamsonValley-1 | Iron Springs Rd | N of Pioneer Pkwy | 2.79 |
|  | WilliamsonValley-2 | N of Pioneer Pkwy | N of Outer Loop Rd | 6.53 |
|  | WilliamsonValley-3 | N of Outer Loop Rd | West CYMPO Boundary | 7.59 |
| Willow Creek Rd | WillowCreek-1 | Iron Springs Rd | N of Commerce Dr | 4.14 |
|  | WillowCreek-2 | N of Commerce Dr | N of Pioneer Pkwy | 1.90 |
|  | WillowCreek-3 | N of Pioneer Pkwy | SR 89 | 1.69 |
| Willow Lake Rd | WillowLake-1 | SR 89 | Willow Creek Rd | 2.13 |
| Total | 52 |  |  | 143.52 |

Appendix C - Performance Analysis

## Pavement

ADOT Route Condition - International Roughness Index

|  | (Pos Dir) |  | (Neg Dir) |  | Average |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Segment | IRI | Condition | IRI | Condition | IRI | Condition |
| 169-1 | 80.60 | Good | 84.84 | Good | 82.72 | Good |
| 69-1 | 52.24 | Good | 65.48 | Good | 58.86 | Good |
| 69-2 | 81.88 | Good | 93.19 | Good | 87.54 | Good |
| 69-3 | 149.07 | Fair | 106.27 | Fair | 111.72 | Fair |
| 69-4 | 97.90 | Good | 75.08 | Good | 86.49 | Good |
| 69-5 | 82.36 | Good | 92.70 | Good | 87.63 | Good |
| 69-6 | 89.54 | Good | 80.87 | Good | 85.58 | Good |
| 89A-1 | 73.16 | Good | 74.98 | Good | 74.07 | Good |
| 89A-2 | 82.89 | Good | 83.04 | Good | 82.96 | Good |
| Fain-1 | 57.13 | Good | 58.76 | Good | 57.94 | Good |
| 89-1 | 127.33 | Fair | 127.62 | Fair | 127.47 | Fair |
| 89-2 | 103.76 | Good | 85.54 | Good | 95.89 | Good |
| 89-3 | 60.15 | Good | 58.10 | Good | 59.13 | Good |
| 89-4 | 89.90 | Good | 93.27 | Good | 91.58 | Good |
| 89-5 | 77.59 | Good | 100.60 | Fair | 89.09 | Good |


|  | Average |  |
| :---: | :---: | :---: |
| Segment | OCI | Condition |
| OuterLoop-1 | 60.81 | Fair |
| OuterLoop-2 | 56.17 | Fair |
| Pioneer-1 | 90.42 | Good |
| Pioneer-2 | 88.28 | Good |
| WilliamsonValley-1 | 84.40 | Good |
| WilliamsonValley-2 | 91.06 | Good |
| WilliamsonValley-3 | 90.80 | Good |

Town of Prescott Valley Route Condition

| Segment | Condition* |
| :---: | :---: |
| GlassfordHill-1 | Good |
| GlassfordHill-2 | Good |
| Lakeshore-1 | Good |
| Lakeshore-2 | Fair |
| Lakeshore-3 | Good |
| Robert-1 | Good |
| Robert-2 | Good |
| Robert-3 | Fair |

*Pavement conditions were determined by direct Town of Prescott Valley staff input

City of Prescott Route Condition - Pavement Quality Index

|  | (Pos Dir) |  | (Neg Dir) |  | Average |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Segment | PQI | Condition | PQI | Condition | PQI | Condition |
| Gurley-1 | 87.60 | Good | 87.60 | Good | 87.60 | Good |
| Gurley-2 | 89.22 | Good | 72.73 | Good | 76.23 | Good |
| IronSprings-1 | 91.00 | Good | 91.00 | Good | 91.00 | Good |
| IronSprings-2 | 91.00 | Good | 91.00 | Good | 91.00 | Good |
| Montezuma-1 | 80.64 | Good | 80.64 | Good | 80.64 | Good |
| Montezuma-2 | 98.00 | Good | 84.02 | Good | 90.38 | Good |
| Montezuma-3 | 76.36 | Good | 76.36 | Good | 76.36 | Good |
| MountVernon-1 | 44.74 | Fair | 98.00 | Good | 71.40 | Good |
| PrescottLakes-1 | 85.10 | Good | 85.10 | Good | 85.10 | Good |
| PrescottLakes-2 | 85.53 | Good | 85.53 | Good | 85.53 | Good |
| Rosser-1 | 71.05 | Good | 71.05 | Good | 71.05 | Good |
| Senator-1 | 94.00 | Good | 94.00 | Good | 94.00 | Good |
| Sheldon-1 | 93.55 | Good | 93.55 | Good | 93.55 | Good |
| Sheldon-2 | 88.11 | Good | 88.11 | Good | 88.11 | Good |
| SmokeTree-1 | 60.45 | Good | 60.45 | Good | 60.45 | Good |
| Whipple-1 | 89.00 | Good | 89.00 | Good | 89.00 | Good |
| WhiteSpar-1 | 81.00 | Good | 81.00 | Good | 81.00 | Good |
| WillowCreek-1 | 80.54 | Good | 80.54 | Good | 80.54 | Good |
| WillowCreek-2 | 76.52 | Good | 76.52 | Good | 76.52 | Good |
| WillowLake-1 | 85.05 | Good | 85.05 | Good | 85.05 | Good |

Bridge

| SR 169-1 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structure Name | Structure \# | Deck Area (sq. $\mathrm{ft})$ | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Agua Fria River Br | 2897 | 20664 | 88.40 | 7.00 | 8.00 | 8.00 | N | 8.00 | 7.0 | $\begin{gathered} 2010 / \\ \text { N/A } \\ \hline \end{gathered}$ |
| Texas Gulch RCB | 6350 | 1496 | 90.10 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{aligned} & \hline 1971 / \\ & 1988 \\ & \hline \end{aligned}$ |
| RCB | 6349 | 1020 | 90.10 | N | N | N | 6.00 | 6.00 | 6.0 | $\begin{aligned} & 1971 / \\ & \text { N/A } \end{aligned}$ |
| Weighted Average |  |  | 88.58 |  |  |  |  |  | 6.96 |  |
| SR 69-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| $\begin{aligned} & \text { Green Gulch } \\ & \text { RCB } \end{aligned}$ | 4270 | 3104 | 69.70 | N | N | N | 6.00 | 6.00 | 6.0 | $\begin{gathered} 1954 / \\ 1994 \end{gathered}$ |
| RCB | 4271 | 3268 | 69.70 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1954 / \\ 1992 \\ \hline \end{gathered}$ |
| RCB | 4272 | 4940 | 68.40 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} \hline 1954 / \\ 1989 \\ \hline \end{gathered}$ |
| Clipper Wash RCB | 4273 | 4940 | 69.70 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{aligned} & 1954 / \\ & 2004 \\ & \hline \end{aligned}$ |
| Lynx Creek Bridge | 393 | 16119 | 72.70 | 6.00 | 7.00 | 7.00 | N | 5.00 | 5.0 | $\begin{gathered} 1953 / \\ 1990 \\ \hline \end{gathered}$ |
| Weighted Average |  |  | 71.00 |  |  |  |  |  | 5.91 |  |
| SR 69-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| SR 69-3 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - |  | - | - | - |  | - | - | - |  |
| SR 69-4 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. <br> ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Alberson Wash RCB | 4274 | 2592 | 69.70 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1953 / \\ 1989 \end{gathered}$ |
| Weighted Average |  |  | 69.70 |  |  |  |  |  | 7.00 |  |
| SR 69-5 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| SR 69-6 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Government Wash RCB | 4275 | 2250 | 70.00 | N | N | N | 6.00 | 6.00 | 6.0 | $\begin{gathered} 1952 / \\ \text { N/A } \end{gathered}$ |
| SR 89 TI WHIPPLE OP | 2802 | 6286 | 98.20 | 7.00 | 7.00 | 8.00 | N | 7.00 | 7.0 | $\begin{gathered} 2009 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 90.77 |  |  |  |  |  | 6.74 |  |


| SR 89-1 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Government Draw RCB | 4799 | 2415 | 84.80 | N | N | N | 6.00 | 6.00 | 6.0 | $\begin{gathered} 1952 / \\ \mathrm{N} / \mathrm{A} \end{gathered}$ |
| Government Cyn Wash RCB | 7173 | 1000 | 83.60 | N | N | N | 8.00 | 8.00 | 8.0 | $\begin{gathered} 2009 \text { / } \\ \text { N/A } \\ \hline \end{gathered}$ |
| Weighted Average |  |  | 84.45 |  |  |  |  |  | 6.59 |  |
| SR 89-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Willow Creek RCB | 6042 | 1440 | 89.90 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1954 / \\ \mathrm{N} / \mathrm{A} \\ \hline \end{gathered}$ |
| Weighted Average |  |  | 89.90 |  |  |  |  |  | 7.00 |  |
| SR 89-3 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Target Range Wsh RCB | 4800 | 1280 | 69.90 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{aligned} & 1957 / \\ & \text { N/A } \end{aligned}$ |
| Bottleneck Wash RCB | 6768 | 1720 | 69.90 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{aligned} & 1961 / \\ & 2015 \end{aligned}$ |
| RCB | 6036 | 1786 | 65.90 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{aligned} & \hline 1961 / \\ & 2015 \\ & \hline \end{aligned}$ |
| RCB | 4801 | 1974 | 80.90 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{aligned} & 1967 \\ & 2005 \end{aligned}$ |
| Weighted Average |  |  | 72.06 |  |  |  |  |  | 7.00 |  |
| SR 89-4 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| RCB | 4803 | 3565 | 94.30 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{aligned} & \hline 1967 / \\ & \text { N/A } \end{aligned}$ |
| Weighted Average |  |  | 94.30 |  |  |  |  |  | 7.00 |  |
| SR 89-5 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Del Rio Ranch Bridge | 20046 | 7995 | 82.80 | 7.00 | 7.00 | 8.00 | N | 7.00 | 7.0 | $\begin{gathered} 2013 / \\ \text { N/A } \\ \hline \end{gathered}$ |
| RCB | 4804 | 840 | 82.10 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1967 / \\ \text { N/A } \end{gathered}$ |
| RCB | 4805 | 840 | 82.10 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1967 / \\ \text { N/A } \end{gathered}$ |
| Big Chino Wash Bridge | 979 | 14210 | 82.20 | 7.00 | 7.00 | 7.00 | N | 7.00 | 7.0 | $\begin{aligned} & \hline 1967 / \\ & 2014 \\ & \hline \end{aligned}$ |
| RCB | 4806 | 1280 | 82.10 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1962 / \\ \text { N/A } \end{gathered}$ |
| Paulden ATSF RR UP | 1577 | 1248 | N/A | N | 7.00 | 6.00 | N | N | 6.0 | $\begin{gathered} 1961 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 82.38 |  |  |  |  |  | 6.95 |  |


| SR 89A-1 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| $\begin{aligned} & \text { SR 89A TI OP } \\ & \text { EB } \end{aligned}$ | 1862 | 12589 | 100.00 | 7.00 | 8.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2008 / \\ \text { N/A } \end{gathered}$ |
| $\begin{aligned} & \text { SR 89A TI OP } \\ & \text { WB } \end{aligned}$ | 1863 | 12589 | 100.00 | 7.00 | 8.00 | 8.00 | N | 8.00 | 7.0 | $\begin{gathered} 2008 / 1 \\ \text { N/A } \end{gathered}$ |
| RCB | 7149 | 3096 | 71.30 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1986 / \\ 2003 \\ \hline \end{gathered}$ |
| Larry Caldwell Drive TI UP | 1891 | 11430 | 98.20 | 7.00 | 7.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2001 / 1 \\ \text { N/A } \end{gathered}$ |
| Granite Creek Bridge NB | 2015 | 31763 | 98.80 | 6.00 | 8.00 | 7.00 | N | 7.00 | 6.0 | $\begin{gathered} 2001 / \\ \mathrm{N} / \mathrm{A} \\ \hline \end{gathered}$ |
| Granite Creek Bridge SB | 2559 | 21236 | 98.80 | 6.00 | 8.00 | 7.00 | N | 7.00 | 6.0 | $\begin{gathered} 2001 / \\ \text { N/A } \\ \hline \end{gathered}$ |
| Granite Dells Pkwy TI UP | 2807 | 13523 | 99.80 | 7.00 | 8.00 | 8.00 | N | 8.00 | 7.0 | $\begin{gathered} 2010 / \\ \mathrm{N} / \mathrm{A} \end{gathered}$ |
| Glassford Hill Rd TI OP NB | 2666 | 11200 | 100.00 | 7.00 | 7.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2005 / \\ \text { N/A } \\ \hline \end{gathered}$ |
| Glassford Hill Rd TI OP SB | 2667 | 11200 | 100.00 | 7.00 | 7.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2003 / \\ \text { N/A } \end{gathered}$ |
| Viewpoint Dr TI OP | 2959 | 28523 | 100.00 | 8.00 | 8.00 | 8.00 | N | 8.00 | 8.0 | $\begin{gathered} 2011 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 98.88 |  |  |  |  |  | 6.84 |  |
| SR 89A-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Coyote Wash RCB | 7174 | 2680 | 99.70 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 2008 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 99.70 |  |  |  |  |  | 7.00 |  |
| Fain-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Coyote Wash Bridge NB | 20079 | 6406 | 99.90 | 7.00 | 8.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2012 / \\ \text { N/A } \end{gathered}$ |
| Coyote Wash Bridge SB | 20080 | 5645 | 99.90 | 7.00 | 8.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2002 / 1 \\ \text { N/A } \end{gathered}$ |
| Box Culvert | 7302 | 924 | 82.10 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{aligned} & 2002 / \\ & 2012 \\ & \hline \end{aligned}$ |
| Lakeshore Dr TI OP NB | 20081 | 5600 | 100.00 | 8.00 | 8.00 | 8.00 | N | 8.00 | 8.0 | $\begin{gathered} 2012 / \\ \mathrm{N} / \mathrm{A} \end{gathered}$ |
| Lakeshore Dr TI OP SB | 20082 | 5600 | 100.00 | 7.00 | 8.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2002 / \\ \text { N/A } \end{gathered}$ |
| Box Culvert | 7301 | 1976 | 82.10 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 2002 / \\ 2012 \end{gathered}$ |
| Agua Fria River Bridge NB | 20083 | 5690 | 99.90 | 7.00 | 8.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2012 / \\ \text { N/A } \\ \hline \end{gathered}$ |
| Agua Fria River Bridge SB | 20084 | 4749 | 99.90 | 7.00 | 7.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2002 / \\ \text { N/A } \\ \hline \end{gathered}$ |
| Lynx Creek Bridge NB | 20085 | 13485 | 100.00 | 7.00 | 8.00 | 8.00 | N | 8.00 | 7.0 | $\begin{gathered} 2012 / \\ \text { N/A } \\ \hline \end{gathered}$ |
| Lynx Creek Bridge SB | 20086 | 13933 | 100.00 | 6.00 | 8.00 | 7.00 | N | 7.00 | 6.0 | $\begin{gathered} 2002 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 99.15 |  |  |  |  |  | 6.87 |  |
| GlassfordHill-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. <br> ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |


| GlassfordHill-2 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| RCB | 7997 | 2368 | 76.00 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1996 / \\ \mathrm{N} / \mathrm{A} \end{gathered}$ |
| RCB | 7998 | 1050 | 76.00 | N | N | N | 8.00 | 8.00 | 8.0 | $\begin{gathered} 1996 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 76.00 |  |  |  |  |  | 7.31 |  |
| Gurley-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Gurley-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. $\qquad$ <br> ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year <br> Built / <br> Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Gurley-3 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Granite Creek $\mathrm{Br} \# 4$ | 9094 | 5600 | 70.70 | 6.00 | 5.00 | 6.00 | N | 5.00 | 5.0 | $\begin{aligned} & 1924 / \\ & 1993 \\ & \hline \end{aligned}$ |
| Butte Creek Bridge | 9786 | 1714 | 66.90 | 6.00 | 7.00 | 7.00 | N | 5.00 | 5.0 | $\begin{gathered} 1924 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 69.81 |  |  |  |  |  | 5.00 |  |
| IronSprings-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| IronSprings-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Willow Creek Bridge | 9108 | 2172 | 53.70 | 5.00 | 4.00 | 5.00 | N | 4.00 | 4.0 | $\begin{aligned} & 1935 / \\ & 1976 \\ & \hline \end{aligned}$ |
| Jurassic Wash Br | 9114 | 1181 | 79.30 | 6.00 | 6.00 | 6.00 | N | 6.00 | 6.0 | $\begin{gathered} 1937 / \\ 1977 \\ \hline \end{gathered}$ |
| Weighted Average |  |  | 62.72 |  |  |  |  |  | 4.7 |  |
| Lakeshore-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Lakeshore-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / <br> Recon. |
| Coyote Wash RCB | 10526 | 1700 | 99.30 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 2004 / \\ \text { N/A } \end{gathered}$ |
| Agua Fria River RCB | 10541 | 2992 | 99.30 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 2004 / \\ \mathrm{N} / \mathrm{A} \end{gathered}$ |
| $\begin{aligned} & \text { Santa Fe Loop } \\ & \text { RCB } \end{aligned}$ | 10542 | 884 | 99.30 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 2004 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 99.3 |  |  |  |  |  | 7.00 |  |


| Montezuma-1 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / <br> Recon. |
| La Guardia Bridge | 7865 | 23777 | 81.00 | 7.00 | 7.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 1990 / \\ \mathrm{N} / \mathrm{A} \end{gathered}$ |
| Weighted Average |  |  | 81.00 |  |  |  |  |  | 7.00 |  |
| Montezuma-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Montezuma-3 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / <br> Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| MtVernon-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. $\mathrm{ft})$ | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| OuterLoop-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| OuterLoop-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Outer Loop Rd CMPA | 10774 | 1260 | 99.30 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1979 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 99.30 |  |  |  |  |  | 7.00 |  |
| Pioneer-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Pioneer-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| PrescottLakes-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| $\begin{aligned} & \text { Granite Creek } \\ & \text { Bridge } \\ & \hline \end{aligned}$ | 10235 | 54008 | 97.80 | 7.00 | 8.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2001 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 97.80 |  |  |  |  |  | 7.00 |  |
| PrescottLakes-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. $\mathrm{ft})$ | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Robert-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |


| Robert-2 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Robert-3 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Rosser-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | ) | - | - | - | - | - | - | - |  |
| Senator-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Sheldon-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | ) | - | - | - | - | - | - | - |  |
| Sheldon-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. <br> ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| SmokeTree-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| Whipple-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |
| WhiteSpar-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| $\begin{aligned} & \text { Granite Creek } \\ & \text { RCBC } \end{aligned}$ | 10360 | 3648 | 97.90 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1950 / \\ \text { N/A } \end{gathered}$ |
| Granite Creek $\mathrm{Br} \# 1$ | 105 | 1515 | 74.80 | 6.00 | 6.00 | 7.00 | N | 6.00 | 6.0 | $\begin{gathered} 1943 / \\ \text { N/A } \end{gathered}$ |
| Granite Creek $\mathrm{Br} \# 2$ | 106 | 1995 | 71.80 | 6.00 | 6.00 | 7.00 | N | 6.00 | 6.0 | $\begin{gathered} 1943 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 85.74 |  |  |  |  |  | 6.51 |  |
| WilliamsonValley-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Willow Creek Bridge | 10324 | 6508 | 84.00 | 7.00 | 8.00 | 7.00 | N | 7.00 | 7.0 | $\begin{gathered} 2004 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 84.00 |  |  |  |  |  | 7.00 |  |
| WilliamsonValley-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. $\mathrm{ft})$ | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built / Recon. |
| Williamson Valley Rd RCB | 10757 | 896 | 90.90 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1973 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 90.90 |  |  |  |  |  | 7.00 |  |


| WilliamsonValley-3 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built <br> Recon. |
| Mint Wash Bridge | 9106 | 2218 | 64.00 | 6.00 | 6.00 | 6.00 | N | 6.00 | 6.0 | $\begin{gathered} 1937 / \\ 1957 \\ \hline \end{gathered}$ |
| Weighted Average |  |  | 64.00 |  |  |  |  |  | 6.00 |  |
| WillowCreek-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year Built <br> Recon. |
| Willow Creek Bridge | 10179 | 11178 | 94.50 | 7.00 | 8.00 | 8.00 | N | 8.00 | 7.0 | $\begin{gathered} 2000 / \\ \text { N/A } \end{gathered}$ |
| Weighted Average |  |  | 94.50 |  |  |  |  |  | 7.00 |  |
| WillowCreek-2 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year <br> Built <br> Recon. |
| Desert Wash RCB | 9471 | 1100 | 81.10 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1963 / \\ 2002 \end{gathered}$ |
| Weighted Average |  |  | 81.10 |  |  |  |  |  | 7.00 |  |
| WillowCreek-3 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest |  |
| RCB | 7149 | 3096 | 71.30 | N | N | N | 7.00 | 7.00 | 7.0 | $\begin{gathered} 1986 / \\ 2003 \end{gathered}$ |
| Weighted Average |  |  | 71.30 |  |  |  |  |  | 7.00 |  |
| WillowLake-1 |  |  |  |  |  |  |  |  |  |  |
| Structure Name | Structure \# | Deck Area (sq. $\qquad$ <br> ft) | Sufficiency Rating | Deck | Sub | Super | Culv | Eval | Lowest | Year <br> Built <br> Recon. |
| N/A | - | - | - | - | - | - | - | - | - | - |

## Safety

Segment Crashes

| Segments | Length (mi) | Volumes | Total Crashes | Total Fatal Crashes | Total Incapacitating Injury Crashes | Total Crash Rate | F\&l Crash Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 169-1 | 2.441315399 | 7,502 | 38 | 0 | 0 | 1.137 | 0.000 |
| 69-1 | 9.013576 | 20,838 | 204 | 5 | 10 | 0.595 | 0.044 |
| 69-2 | 2.039008343 | 30,923 | 314 | 1 | 6 | 2.729 | 0.061 |
| 69-3 | 0.970972322 | 38,467 | 172 | 0 | 4 | 2.523 | 0.059 |
| 69-4 | 2.219596536 | 21,298 | 249 | 1 | 6 | 1.581 | 0.044 |
| 69-5 | 1.955112719 | 41,417 | 251 | 0 | 4 | 1.698 | 0.027 |
| 69-6 | 2.207599311 | 36,280 | 240 | 3 | 7 | 1.642 | 0.068 |
| 89-1 | 2.521541504 | 19,143 | 61 | 0 | 1 | 0.692 | 0.011 |
| 89-2 | 4.187642832 | 16,454 | 102 | 3 | 7 | 0.811 | 0.080 |
| 89-3 | 7.902198549 | 21,148 | 391 | 0 | 16 | 1.282 | 0.052 |
| 89-4 | 7.65131153 | 16,228 | 238 | 0 | 8 | 1.050 | 0.035 |
| 89-5 | 8.612683 | 6,114 | 103 | 4 | 6 | 1.072 | 0.104 |
| 89A-1 | 7.106389432 | 15,895 | 99 | 3 | 7 | 0.285 | 0.029 |
| 89A-2 | 7.072664254 | 1,370 | 20 | 0 | 3 | 1.131 | 0.170 |
| Fain-1 | 7.222362405 | 9,294 | 49 | 5 | 5 | 0.400 | 0.082 |
| GlassfordHill-1 | 2.2508869 | 22,987 | 183 | 1 | 3 | 1.938 | 0.042 |
| GlassfordHill-2 | 1.411165812 | 23,548 | 65 | 0 | 2 | 1.072 | 0.033 |
| Gurley-1 | 0.597287587 | 23,044 | 83 | 0 | 1 | 3.304 | 0.040 |
| Gurley-2 | 0.62661868 | 15,804 | 325 | 0 | 8 | 17.983 | 0.443 |
| Gurley-3 | 1.14173155 | 9,939 | 71 | 0 | 3 | 3.428 | 0.145 |
| IronSprings-1 | 1.488033182 | 16,325 | 105 | 0 | 3 | 2.368 | 0.068 |
| IronSprings-2 | 2.139489404 | 4,453 | 20 | 0 | 2 | 1.150 | 0.115 |
| Lakeshore-1 | 1.106638664 | 7,012 | 55 | 1 | 3 | 1.985 | 0.144 |
| Lakeshore-2 | 2.144491 | 2,575 | 11 | 0 | 1 | 1.091 | 0.099 |
| Lakeshore-3 | 1.191308 | 1,069 | 2 | 0 | 0 | 0.860 | 0.000 |
| Montezuma-1 | 0.674901967 | 23,771 | 50 | 0 | 4 | 1.708 | 0.137 |
| Montezuma-2 | 0.610445948 | 10,514 | 117 | 0 | 1 | 9.989 | 0.085 |
| Montezuma-3 | 0.408258529 | 9,663 | 22 | 0 | 1 | 3.056 | 0.139 |
| MtVernon-1 | 0.815475791 | 6,327 | 20 | 0 | 0 | 2.124 | 0.000 |
| OuterLoop-1 | 1.667548633 | 3,152 | 10 | 0 | 0 | 1.042 | 0.000 |
| OuterLoop-2 | 4.268081768 | 2,825 | 8 | 1 | 1 | 0.364 | 0.091 |
| Pioneer-1 | 2.184588315 | 7,376 | 13 | 0 | 0 | 0.442 | 0.000 |
| Pioneer-2 | 2.331214985 | 7,599 | 27 | 0 | 1 | 0.835 | 0.031 |
| PrescottLakes-1 | 2.367145319 | 17,978 | 84 | 1 | 2 | 1.082 | 0.039 |
| PrescottLakes-2 | 1.114123563 | 7,343 | 15 | 0 | 2 | 1.005 | 0.134 |
| Robert-1 | 0.73311366 | 9,408 | 61 | 0 | 1 | 4.846 | 0.079 |
| Robert-2 | 1.347178698 | 11,500 | 74 | 0 | 1 | 2.617 | 0.035 |
| Robert-3 | 1.789020009 | 6,928 | 32 | 0 | 2 | 1.415 | 0.088 |
| Rosser-1 | 2.738240627 | 4,790 | 36 | 1 | 0 | 1.504 | 0.042 |
| Senator-1 | 2.342131028 | 2,398 | 18 | 1 | 1 | 1.756 | 0.195 |
| Sheldon-1 | 0.625004192 | 13,052 | 91 | 1 | 3 | 6.112 | 0.269 |
| Sheldon-2 | 0.338978814 | 11,497 | 47 | 0 | 1 | 6.608 | 0.141 |
| SmokeTree-1 | 2.664253574 | 3,333 | 20 | 0 | 1 | 1.234 | 0.062 |
| Whipple-1 | 0.877585323 | 25,324 | 107 | 1 | 2 | 2.638 | 0.074 |
| WhiteSpar-1 | 1.75584978 | 4,191 | 30 | 1 | 1 | 2.234 | 0.149 |


| Segments | Length (mi) | Volumes | Total <br> Crashes | Total Fatal <br> Crashes | Total Incapacitating <br> Injury Crashes | Total Crash <br> Rate | F\&I Crash <br> Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WilliamsonValley-1 | 2.786993099 | 9,908 | 50 | 0 | 0 | 0.992 | 0.000 |
| WilliamsonValley-2 | 6.530822896 | 9,990 | 59 | 1 | 4 | 0.496 | 0.042 |
| WilliamsonValley-3 | 7.591018963 | 4,288 | 31 | 0 | 0 | 0.522 | 0.000 |
| WillowCreek-1 | 4.143424532 | 26,145 | 434 | 3 | 9 | 2.195 | 0.061 |
| WillowCreek-2 | 1.90352122 | 23,079 | 42 | 0 | 3 | 0.524 | 0.037 |
| WillowCreek-3 | 1.692616565 | 20,030 | 17 | 0 | 0 | 0.275 | 0.000 |
| WillowLake-1 | 2.127889369 | 7,737 | 73 | 0 | 5 | 2.430 | 0.166 |

## Intersection Hot Spot

| Mainline Route | Intersection | Assigned Segments | Total Crashes | Fatal | Incapacitating | Hotspot |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fain Road | Lakeshore Dr | Fain-1, Lakeshore-3 | 1 | 0 | 0 |  |
| Glassford HillRd | Lakeshore Dr | Glassford-1, Lakeshore-1 | 38 | 0 | 1 | Minor |
|  | Long Look Dr | Glassford-1 | 35 | 0 | 1 | Minor |
|  | Spouse Dr | Glassford-1 | 22 | 0 | 1 |  |
| Gurley St | Mount Vernon Ave | Gurley-2, MtVernon-1 | 22 | 0 | 1 |  |
|  | Montezuma St | Gurley-2 | 72 | 0 | 0 | Minor |
|  | Sheldon St | Gurley-1 | 42 | 1 | 2 | Moderate |
|  | McCormick St | Gurley-2 | 30 | 0 | 1 | Minor |
| Lakeshore Dr | Navajo Dr | Lakeshore-2 | 6 | 1 | 0 |  |
| Montezuma St | Carleton St | Montezuma-2 | 21 | 0 | 0 |  |
|  | Sheldon St | Montezuma-2 | 26 | 0 | 0 |  |
| Mount Vernon Ave | N/A | N/A | N/A | N/A | N/A |  |
| Outer Loop Rd | Reed Rd | OuterLoop-1 | 2 | 0 | 0 |  |
| Pioneer Pwky | Commerce Dr | Pioneer-2 | 16 | 0 | 1 |  |
| Prescott Lakes Pwky | Smoke Tree Ln | PrescottLakes-2 | 4 | 0 | 0 |  |
|  | Willow Lake Rd | PrescottLakes-2, WillowLake-1 | 18 | 0 | 2 | Minor |
| Robert Rd | Lakeshore Dr | Robert-1,Lakeshore,1 | 40 | 0 | 0 |  |
|  | Long Mesa Dr | Robert-3 | 8 | 0 | 0 |  |
| Rosser Rd | N/A | N/A | N/A | N/A | N/A |  |
| Senator Hwy | N/A | N/A | N/A | N/A | N/A |  |
| Sheldon St | Mount Vernon Ave | Sheldon-1 | 17 | 0 | 0 |  |
| SR 169 | N/A | N/A | N/A | N/A | N/A |  |
| SR 69 | SR 169 | 69-1 | 47 | 0 | 2 | Moderate |
|  | Kachina PI | 69-1 | 18 | 0 | 2 | Minor |
|  | Fain Rd | 69-1 | 56 | 2 | 1 | Major |
|  | Navajo Dr | 69-2 | 36 | 0 | 2 | Moderate |
|  | Robert Rd | 69-2 | 38 | 0 | 1 | Minor |
|  | Glassford Hill Rd | 69-2, Glassford-1 | 105 | 0 | 2 | Major |
|  | Old Black Canyon Hwy | 69-5 | 38 | 0 | 0 |  |
|  | SR 89 | 69-6, 89-1 | 6 | 0 | 2 | Minor |
|  | Stoneridge Dr | 69-3 | 45 | 0 | 1 | Minor |
|  | Prescott Lakes Pwky | 69-5 | 89 | 0 | 1 | Moderate |
| SR 89 | Deep Well Ranch Rd | 89-3 | 16 | 0 | 0 |  |
|  | Rosser St | 89-1 | 9 | 0 | 0 |  |
|  | Prescott Lakes Pkwy | 89-2 | 24 | 0 | 1 |  |



## Mobility

## 2030 Mobility

| Segment Ref | Length | AADT | Rounded AADT | $\begin{array}{r} \text { PTI } \\ \text { (NB) } \\ \hline \end{array}$ | $\begin{array}{r} \text { PTI } \\ \text { (SB) } \\ \hline \end{array}$ | $\begin{array}{r} \mathrm{TTI} \\ \text { (NB) } \\ \hline \end{array}$ | $\begin{array}{r} \mathrm{TTI} \\ \text { (SB) } \\ \hline \end{array}$ | Mobility Index | 2030 <br> Future V/C | Multi- <br> Modal <br> Need |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fain Rd (Segment 1) | 7.22 | 9,294 | 9,300 | 1.24 | 1.28 | 1.10 | 1.11 | 0.343 | 0.401 | 0.5 |
| Glassford Hill Rd (Segment 1) | 2.25 | 22,987 | 23,000 | N/A | N/A | N/A | N/A | 0.579 | 0.645 | 2.5 |
| Glassford Hill Rd (Segment 2) | 1.41 | 23,548 | 23,500 | N/A | N/A | N/A | N/A | 0.649 | 0.737 | 1.5 |
| Gurley St (Segment 1) | 0.60 | 23,044 | 23,000 | N/A | N/A | N/A | N/A | 0.581 | 0.590 | 1.5 |
| Gurley St (Segment 2) | 0.63 | 15,804 | 15,800 | N/A | N/A | N/A | N/A | 0.421 | 0.423 | 1.5 |
| Gurley St (Segment 3) | 1.14 | 9,939 | 9,900 | N/A | N/A | N/A | N/A | 0.282 | 0.282 | 0.5 |
| Iron Springs Rd (Segment 1) | 1.49 | 16,325 | 16,300 | N/A | N/A | N/A | N/A | 0.599 | 0.681 | 0.0 |
| Iron Springs Rd (Segment 2) | 2.14 | 4,453 | 4,500 | N/A | N/A | N/A | N/A | 0.369 | 0.388 | 0.5 |
| Lakeshore Dr (Segment 1) | 1.11 | 7,012 | 7,000 | N/A | N/A | N/A | N/A | 0.270 | 0.308 | 1.5 |
| Lakeshore Dr (Segment 2) | 2.14 | 2,575 | 2,600 | N/A | N/A | N/A | N/A | 0.157 | 0.170 | 0.0 |
| Lakeshore Dr (Segment 3) | 1.19 | 1,069 | 1,100 | N/A | N/A | N/A | N/A | 0.113 | 0.126 | 1.5 |
| Montezuma St (Segment 1) | 0.67 | 23,771 | 23,800 | N/A | N/A | N/A | N/A | 0.451 | 0.471 | 0.0 |
| Montezuma St (Segment 2) | 0.61 | 10,514 | 10,500 | 2.60 | 2.00 | 1.55 | 1.36 | 0.656 | 0.660 | 0.0 |
| Montezuma St (Segment 3) | 0.41 | 9,663 | 9,700 | 2.12 | 1.95 | 1.33 | 1.32 | 0.518 | 0.518 | 1.5 |
| Mt Vernon Ave (Segment 1) | 0.82 | 6,327 | 6,300 | N/A | N/A | N/A | N/A | 0.496 | 0.507 | 1.5 |
| Outer Loop Rd (Segment 1) | 1.67 | 3,152 | 3,200 | N/A | N/A | N/A | N/A | 0.142 | 0.149 | 0.5 |
| Outer Loop Rd (Segment 2) | 4.27 | 2,825 | 2,800 | N/A | N/A | N/A | N/A | 0.100 | 0.117 | 0.5 |
| Pioneer Pwky (Segment 1) | 2.18 | 7,376 | 7,400 | N/A | N/A | N/A | N/A | 0.227 | 0.299 | 0.5 |
| Pioneer Pwky (Segment 2) | 2.33 | 7,599 | 7,600 | N/A | N/A | N/A | N/A | 0.267 | 0.344 | 0.5 |
| Prescott Lakes Pkwy (Segment 1) | 2.37 | 17,978 | 18,000 | N/A | N/A | N/A | N/A | 0.397 | 0.428 | 1.5 |
| Prescott Lakes Pkwy (Segment 2) | 1.11 | 7,343 | 7,300 | N/A | N/A | N/A | N/A | 0.161 | 0.178 | 1.5 |
| Robert Rd (Segment 1) | 0.73 | 9,408 | 9,400 | N/A | N/A | N/A | N/A | 0.411 | 0.447 | 1.5 |
| Robert Rd (Segment 2) | 1.35 | 11,500 | 11,500 | N/A | N/A | N/A | N/A | 0.387 | 0.436 | 1.5 |
| Robert Rd (Segment 3) | 1.79 | 6,928 | 6,900 | N/A | N/A | N/A | N/A | 0.387 | 0.422 | 1.5 |
| Rosser Rd (Segment 1) | 2.74 | 4,790 | 4,800 | N/A | N/A | N/A | N/A | 0.186 | 0.192 | 1.5 |
| Senator Hwy (Segment 1) | 2.34 | 2,398 | 2,400 | N/A | N/A | N/A | N/A | 0.308 | 0.317 | 1.5 |
| Sheldon St (Segment 1) | 0.63 | 13,052 | 13,100 | 2.18 | 1.91 | 1.29 | 1.29 | 0.690 | 0.702 | 1.5 |
| Sheldon St (Segment 2) | 0.34 | 11,497 | 11,500 | 2.17 | 2.49 | 1.39 | 1.53 | 0.563 | 0.571 | 1.5 |
| Smoke Tree Ln (Segment 1) | 2.66 | 3,333 | 3,300 | N/A | N/A | N/A | N/A | 0.102 | 0.102 | 1.5 |
| SR 169 (Segment 1) | 2.44 | 7,502 | 7,500 | 1.13 | 1.22 | 1.04 | 1.06 | 0.529 | 0.590 | 1.5 |
| SR 69 (Segment 1) | 9.01 | 20,838 | 20,800 | 1.18 | 1.16 | 1.03 | 1.03 | 0.653 | 0.707 | 0.5 |
| SR 69 (Segment 2) | 2.04 | 30,923 | 30,900 | 1.64 | 1.47 | 1.30 | 1.12 | 0.925 | 0.945 | 1.5 |
| SR 69 (Segment 3) | 0.97 | 38,467 | 38,500 | 1.87 | 1.64 | 1.41 | 1.23 | 0.935 | 0.955 | 2.5 |
| SR 69 (Segment 4) | 2.22 | 21,298 | 21,300 | 1.87 | 1.64 | 1.41 | 1.23 | 0.841 | 0.862 | 2.5 |
| SR 69 (Segment 5) | 1.96 | 41,417 | 41,400 | 2.01 | 1.33 | 1.38 | 1.10 | 0.803 | 0.819 | 1.5 |
| SR 69 (Segment 6) | 2.21 | 36,280 | 36,300 | 1.61 | 1.61 | 1.24 | 1.19 | 0.636 | 0.654 | 1.5 |
| SR 89 (Segment 1) | 2.52 | 19,143 | 19,100 | 1.46 | 1.19 | 1.07 | 1.02 | 0.461 | 0.485 | 0.5 |
| SR 89 (Segment 2) | 4.19 | 16,454 | 16,500 | 1.40 | 1.38 | 1.09 | 1.07 | 0.889 | 0.934 | 0.5 |


| Segment Ref | Length | AADT | Rounded AADT | $\begin{gathered} \text { PTI } \\ \text { (NB) } \end{gathered}$ | $\begin{gathered} \text { PTI } \\ \text { (SB) } \end{gathered}$ | $\begin{gathered} \text { TTI } \\ \text { (NB) } \end{gathered}$ | $\begin{aligned} & \text { TTI } \\ & \text { (SB) } \end{aligned}$ | Mobility Index | 2030 <br> Future V/C | MultiModal Need |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SR 89 (Segment 3) | 7.90 | 21,148 | 21,100 | 1.33 | 1.41 | 1.07 | 1.06 | 0.736 | 0.789 | 0.5 |
| SR 89 (Segment 4) | 7.65 | 16,228 | 16,200 | 1.33 | 1.27 | 1.09 | 1.04 | 0.718 | 0.772 | 1.5 |
| SR 89 (Segment 5) | 8.61 | 6,114 | 6,100 | 1.09 | 1.09 | 1.02 | 1.03 | 0.662 | 0.727 | 0.5 |
| SR 89A (Segment 1) | 7.11 | 15,895 | 15,900 | 1.23 | 1.25 | 1.12 | 1.10 | 0.429 | 0.486 | 0.5 |
| SR 89A (Segment 2) | 7.07 | 1,370 | 1,400 | 1.11 | 1.13 | 1.04 | 1.06 | 0.184 | 0.213 | 0.5 |
| Whipple (Segment 1) | 0.88 | 25,324 | 25,300 | N/A | N/A | N/A | N/A | 0.593 | 0.629 | 0.0 |
| White Spar (Segment 1) | 1.76 | 4,191 | 4,200 | 1.59 | 1.46 | 1.10 | 1.13 | 0.491 | 0.512 | 1.5 |
| Williamson Valley Rd (Segment 1) | 2.79 | 9,908 | 9,900 | N/A | N/A | N/A | N/A | 0.395 | 0.492 | 0.5 |
| Williamson Valley Rd (Segment 2) | 6.53 | 9,990 | 10,000 | N/A | N/A | N/A | N/A | 0.375 | 0.423 | 0.5 |
| Williamson Valley Rd (Segment 3) | 7.59 | 4,288 | 4,300 | N/A | N/A | N/A | N/A | 0.148 | 0.166 | 0.5 |
| Willow Creek Rd (Segment 1) | 4.14 | 26,145 | 26,100 | N/A | N/A | N/A | N/A | 0.718 | 0.763 | 0.0 |
| Willow Creek Rd (Segment 2) | 1.90 | 23,079 | 23,100 | N/A | N/A | N/A | N/A | 0.778 | 0.849 | 1.5 |
| Willow Creek Rd (Segment 3) | 1.69 | 20,030 | 20,000 | N/A | N/A | N/A | N/A | 0.650 | 0.740 | 1.5 |
| Willow Lake Rd (Segment 1) | 2.13 | 7,737 | 7,700 | N/A | N/A | N/A | N/A | 0.472 | 0.544 | 0.5 |

## 2045 Mobility

| Segment Ref | Length | AADT | Rounded AADT | $\begin{gathered} \text { PTI } \\ \text { (NB) } \end{gathered}$ | $\begin{array}{r} \text { PTI } \\ \text { (SB) } \end{array}$ | $\begin{aligned} & \text { TTI } \\ & \text { (NB) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { TTI } \\ & \text { (SB) } \end{aligned}$ | Mobility Index | 2045 <br> Future V/C |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fain Rd (Segment 1) | 7.22 | 9,294 | 9,300 | 1.24 | 1.28 | 1.10 | 1.11 | 0.430 | 0.574 | 0.5 |
| Glassford Hill Rd (Segment 1) | 2.25 | 22,987 | 23,000 | N/A | N/A | N/A | N/A | 0.625 | 0.737 | 2.5 |
| Glassford Hill Rd (Segment 2) | 1.41 | 23,548 | 23,500 | N/A | N/A | N/A | N/A | 0.728 | 0.896 | 1.5 |
| Gurley St (Segment 1) | 0.60 | 23,044 | 23,000 | N/A | N/A | N/A | N/A | 0.589 | 0.607 | 1.5 |
| Gurley St (Segment 2) | 0.63 | 15,804 | 15,800 | N/A | N/A | N/A | N/A | 0.421 | 0.423 | 1.5 |
| Gurley St (Segment 3) | 1.14 | 9,939 | 9,900 | N/A | N/A | N/A | N/A | 0.288 | 0.295 | 0.5 |
| Iron Springs Rd (Segment 1) | 1.49 | 16,325 | 16,300 | N/A | N/A | N/A | N/A | 0.699 | 0.881 | 0.0 |
| Iron Springs Rd (Segment 2) | 2.14 | 4,453 | 4,500 | N/A | N/A | N/A | N/A | 0.390 | 0.430 | 0.5 |
| Lakeshore Dr (Segment 1) | 1.11 | 7,012 | 7,000 | N/A | N/A | N/A | N/A | 0.333 | 0.435 | 1.5 |
| Lakeshore Dr (Segment 2) | 2.14 | 2,575 | 2,600 | N/A | N/A | N/A | N/A | 0.208 | 0.273 | 0.0 |
| Lakeshore Dr (Segment 3) | 1.19 | 1,069 | 1,100 | N/A | N/A | N/A | N/A | 0.139 | 0.179 | 1.5 |
| Montezuma St (Segment 1) | 0.67 | 23,771 | 23,800 | N/A | N/A | N/A | N/A | 0.503 | 0.574 | 0.0 |
| Montezuma St (Segment 2) | 0.61 | 10,514 | 10,500 | 2.60 | 2.00 | 1.55 | 1.36 | 0.673 | 0.694 | 0.0 |
| Montezuma St (Segment 3) | 0.41 | 9,663 | 9,700 | 2.12 | 1.95 | 1.33 | 1.32 | 0.521 | 0.523 | 1.5 |
| Mt Vernon Ave (Segment 1) | 0.82 | 6,327 | 6,300 | N/A | N/A | N/A | N/A | 0.512 | 0.540 | 1.5 |
| Outer Loop Rd (Segment 1) | 1.67 | 3,152 | 3,200 | N/A | N/A | N/A | N/A | 0.156 | 0.178 | 0.5 |
| Outer Loop Rd (Segment 2) | 4.27 | 2,825 | 2,800 | N/A | N/A | N/A | N/A | 0.137 | 0.190 | 0.5 |
| Pioneer Pwky (Segment 1) | 2.18 | 7,376 | 7,400 | N/A | N/A | N/A | N/A | 0.331 | 0.509 | 0.5 |
| Pioneer Pwky (Segment 2) | 2.33 | 7,599 | 7,600 | N/A | N/A | N/A | N/A | 0.398 | 0.606 | 0.5 |
| Prescott Lakes Pkwy (Segment 1) | 2.37 | 17,978 | 18,000 | N/A | N/A | N/A | N/A | 0.436 | 0.505 | 1.5 |
| Prescott Lakes Pkwy (Segment 2) | 1.11 | 7,343 | 7,300 | N/A | N/A | N/A | N/A | 0.208 | 0.271 | 1.5 |
| Robert Rd (Segment 1) | 0.73 | 9,408 | 9,400 | N/A | N/A | N/A | N/A | 0.490 | 0.604 | 1.5 |


| Segment Ref | Length | AADT | Rounded AADT | $\begin{gathered} \text { PTI } \\ \text { (NB) } \end{gathered}$ | $\begin{gathered} \text { PTI } \\ \text { (SB) } \end{gathered}$ | $\begin{gathered} \text { TTI } \\ \text { (NB) } \end{gathered}$ | $\begin{array}{r} \text { TTI } \\ \text { (SB) } \end{array}$ | Mobility Index | 2045 <br> Future V/C | Multi- <br> Modal <br> Need |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Robert Rd (Segment 2) | 1.35 | 11,500 | 11,500 | N/A | N/A | N/A | N/A | 0.486 | 0.634 | 1.5 |
| Robert Rd (Segment 3) | 1.79 | 6,928 | 6,900 | N/A | N/A | N/A | N/A | 0.483 | 0.613 | 1.5 |
| Rosser Rd (Segment 1) | 2.74 | 4,790 | 4,800 | N/A | N/A | N/A | N/A | 0.202 | 0.224 | 1.5 |
| Senator Hwy (Segment 1) | 2.34 | 2,398 | 2,400 | N/A | N/A | N/A | N/A | 0.320 | 0.342 | 1.5 |
| Sheldon St (Segment 1) | 0.63 | 13,052 | 13,100 | 2.18 | 1.91 | 1.29 | 1.29 | 0.708 | 0.740 | 1.5 |
| Sheldon St (Segment 2) | 0.34 | 11,497 | 11,500 | 2.17 | 2.49 | 1.39 | 1.53 | 0.583 | 0.611 | 1.5 |
| Smoke Tree Ln (Segment 1) | 2.66 | 3,333 | 3,300 | N/A | N/A | N/A | N/A | 0.107 | 0.111 | 1.5 |
| SR 169 (Segment 1) | 2.44 | 7,502 | 7,500 | 1.13 | 1.22 | 1.04 | 1.06 | 0.602 | 0.737 | 1.5 |
| SR 69 (Segment 1) | 9.01 | 20,838 | 20,800 | 1.18 | 1.16 | 1.03 | 1.03 | 0.704 | 0.809 | 0.5 |
| SR 69 (Segment 2) | 2.04 | 30,923 | 30,900 | 1.64 | 1.47 | 1.30 | 1.12 | 0.946 | 0.987 | 1.5 |
| SR 69 (Segment 3) | 0.97 | 38,467 | 38,500 | 1.87 | 1.64 | 1.41 | 1.23 | 0.962 | 1.011 | 2.5 |
| SR 69 (Segment 4) | 2.22 | 21,298 | 21,300 | 1.87 | 1.64 | 1.41 | 1.23 | 0.866 | 0.913 | 2.5 |
| SR 69 (Segment 5) | 1.96 | 41,417 | 41,400 | 2.01 | 1.33 | 1.38 | 1.10 | 0.825 | 0.865 | 1.5 |
| SR 69 (Segment 6) | 2.21 | 36,280 | 36,300 | 1.61 | 1.61 | 1.24 | 1.19 | 0.657 | 0.696 | 1.5 |
| SR 89 (Segment 1) | 2.52 | 19,143 | 19,100 | 1.46 | 1.19 | 1.07 | 1.02 | 0.498 | 0.560 | 0.5 |
| SR 89 (Segment 2) | 4.19 | 16,454 | 16,500 | 1.40 | 1.38 | 1.09 | 1.07 | 0.935 | 1.026 | 0.5 |
| SR 89 (Segment 3) | 7.90 | 21,148 | 21,100 | 1.33 | 1.41 | 1.07 | 1.06 | 0.793 | 0.902 | 0.5 |
| SR 89 (Segment 4) | 7.65 | 16,228 | 16,200 | 1.33 | 1.27 | 1.09 | 1.04 | 0.763 | 0.861 | 1.5 |
| SR 89 (Segment 5) | 8.61 | 6,114 | 6,100 | 1.09 | 1.09 | 1.02 | 1.03 | 0.741 | 0.884 | 0.5 |
| SR 89A (Segment 1) | 7.11 | 15,895 | 15,900 | 1.23 | 1.25 | 1.12 | 1.10 | 0.463 | 0.592 | 0.5 |
| SR 89A (Segment 2) | 7.07 | 1,370 | 1,400 | 1.11 | 1.13 | 1.04 | 1.06 | 0.225 | 0.295 | 0.5 |
| Whipple (Segment 1) | 0.88 | 25,324 | 25,300 | N/A | N/A | N/A | N/A | 0.653 | 0.748 | 0.0 |
| White Spar (Segment 1) | 1.76 | 4,191 | 4,200 | 1.59 | 1.46 | 1.10 | 1.13 | 0.516 | 0.562 | 1.5 |
| Williamson Valley Rd (Segment 1) | 2.79 | 9,908 | 9,900 | N/A | N/A | N/A | N/A | 0.529 | 0.761 | 0.5 |
| Williamson Valley Rd (Segment 2) | 6.53 | 9,990 | 10,000 | N/A | N/A | N/A | N/A | 0.449 | 0.571 | 0.5 |
| Williamson Valley Rd (Segment 3) | 7.59 | 4,288 | 4,300 | N/A | N/A | N/A | N/A | 0.171 | 0.212 | 0.5 |
| Willow Creek Rd (Segment 1) | 4.14 | 26,145 | 26,100 | N/A | N/A | N/A | N/A | 0.773 | 0.874 | 0.0 |
| Willow Creek Rd (Segment 2) | 1.90 | 23,079 | 23,100 | N/A | N/A | N/A | N/A | 0.841 | 0.976 | 1.5 |
| Willow Creek Rd (Segment 3) | 1.69 | 20,030 | 20,000 | N/A | N/A | N/A | N/A | 0.724 | 0.889 | 1.5 |
| Willow Lake Rd (Segment 1) | 2.13 | 7,737 | 7,700 | N/A | N/A | N/A | N/A | 0.579 | 0.758 | 0.5 |

Appendix D - Travel Demand Modeling Methodology

## 1 Introduction

The purpose of this report is to document the validation efforts for the Central Yavapai Metropolitan Planning Organization (CYMPO) travel demand model. For the 2040 CYMPO Regional Transportation Plan (RTP), ADOT's Arizona Statewide Travel Demand Model Version 2 (AZTDM2) was utilized to develop a CYMPO subarea model that nests within the overall statewide model. As part of the 2045 RTP update, a CYMPO focused standalone travel demand model was developed to better reflect and replicate localized travel patterns, provide more flexibility during alternative analysis, and significantly reduce model run times. The standalone model encompasses the greater CYMPO area including the communities of Prescott, Prescott Valley, Chino Valley, Dewey-Humboldt, Yavapai-Prescott Nation, and portions of unincorporated Yavapai County. The model was developed using the TransCAD software platform.

Leveraging previous RTP modeling efforts, the standalone model derives its primary inputs such as the Traffic Analysis Zone (TAZ) structure, model network, and other parameters from the previous AZTDM2 focus model. The model network and TAZs that encompass the CYMPO area were extracted from AZTDM2 and were then updated to reflect current conditions.

Figure 1 illustrates the travel demand model area. Daily traffic counts on City and County roads were collected to serve as the basis for the validation efforts. Cordon and screenline locations were developed to summarize and compare model validation estimates with actual count data.

Figure 1 - CYMPO Model Area


## 2 Model Validation Database

Model validation efforts consists of several steps including estimation of person trips (trip generation), distribution of trips (trip distribution), assignment of trips to the network (trip assignment) and aggregate and roadway level comparisons of model assigned daily vehicle trips to traffic counts.

The validation process is a top down approach starting with estimation of the number for trips within the region and ending with roadway level analysis. At each step, daily traffic counts are used to evaluate if the model is performing within acceptable standards. For the CYMPO model validation, both aggregate and disaggregate analyses were conducted. The validation standards used for this analysis followed guidelines from several sources, such as the Federal Highway Administration, the National Cooperative Highway Research Project and Best Practices, and AZTDM2.

The model validation effort consisted of the following comparisons of model assigned traffic to aggregated traffic counts.

- Cordon Line
- Screen Line
- Facility Type
- Volume Group
- Roadway Level

The results of the comparison are then evaluated based on the validation guidelines to determine whether the standards have been met. The first step in the model validation process is to establish the database and validation guideline(s) for each of the categories. The development of the data sets for the model validation are described below.

### 2.1 Cordon Line Database

A cordon line is used to evaluate whether the correct number of trips are entering and exiting the study area. An imaginary circle is drawn across facilities at the boundary of the study area. The imaginary circle is drawn to include, to the extent possible, locations where traffic counts exist on the roadways that serve as entry/exit points to the region. These counts are then totaled to estimate the total daily volume entering and exiting the CYMPO model area. Figure 2 shows the CYMPO model area cordon lines and Table 1 lists the facilities that comprise the CYMPO area cordon line and the existing traffic count for each of the facilities. Based on the information in Table 1 it is estimated that there are approximately 88,500 daily trips between the CYMPO area and the rest of the region. The validation target for the cordon line validation is 10 percent. This means that the sum of the model assigned volumes crossing the cordon line is within $10 \%$ of the traffic counts at the cordon line.

Table 1 - CYMPO Cordon Lines

| Roadway | Location | Existing Counts |
| :--- | :--- | :---: |
| SR 89 | N. of Prescott Ranch Rd | 3,601 |
| SR 89A | N. of FS 104 | 1,412 |
| $\mathbf{I 1 7}$ | N. of SR 169 | 34,404 |
| I17 | S. of SR 69 | 39,579 |
| Senator Highway | S. of Marapai Rd | 1,554 |
| SR 89 | S. of Indian Creek Rd | 2,375 |
| Copper Basin Rd | W. of Forest Rd | 532 |
| Iron Springs Rd | E. of Tonto Rd | 2,139 |
| Williamson Valley Rd | N. of FS 21 | 70 |
| Big Chino Rd | N. of FS 330 | 2,900 |
| TOTAL |  | $\mathbf{8 8 , 5 6 6}$ |

### 2.2 Screen Line Database

Screen lines are tools to analyze whether the CYMPO focused model is replicating the existing travel patterns in the CYMPO region. Like cordon lines, screen lines are imaginary lines drawn across major roadways at specific locations in the roadway network. Figure 3 shows the screen lines for the CYMPO focused model.

Six screen lines were developed for the CYMPO model validation, four north/south screen lines and two east/west screen lines. Each screen line was drawn to capture travel patterns in the area.

For example, screen line 1 includes facilities that capture trips coming to/from the City of Prescott traveling in a north/south direction. Screen line 2 captures travel between the Town of Prescott Valley and the City of Prescott. Like the cordon line analysis, the evaluation target for each screen line is to have the model assigned volumes be within 10\% of the traffic counts. Table 2 presents the six CYMPO screen lines and the sum of the existing traffic counts at the screen lines.

Table 2 - CYMPO Focused Model Screen Lines

| Screenline <br> Number | Location | Sum of Existing Traffic <br> Counts | Travel Pattern |
| :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | North Prescott | 49,269 | N/S travel to/from City of Prescott |
| $\mathbf{2}$ | Prescott/Prescott <br> Valley | 74,563 | E/W travel to/from Prescott and |
| Prescott Valley |  |  |  |

Figure 2 - CYMPO Focused Model Cordon Lines


Figure 3 - CYMPO Focused Model Screen Lines


### 2.3 Facility Type Database

Facility type validation is an analysis of roadways that have the same functional classification. The functional classification of roadways for the CYMPO region was documented in the Chapter: Existing Regional Conditions and also depicted in Figure 4. Existing traffic counts are totaled for roadways by facility type and then compared to the sum of the model assigned traffic volumes by facility type. The validation standard for facility types varies by the type of facility and is shown in Table 3.

Table 3 - Facility Type Validation Guidelines

| Facility Type | Number of Count <br> Locations | Validation <br> Guideline |
| :--- | :---: | :---: |
| Freeways | 12 | $+/-7 \%$ |
| Major Arterials | 30 | $+/-10 \%$ |
| Minor Arterials | 58 | $+/-15 \%$ |
| Collectors | 72 | $+/-20 \%$ |

### 2.4 Volume Group and Roadway Database

The goal of the volume group validation is to ascertain that the model is correctly assigning traffic to roadways based on the amount of traffic of the facilities. Aggregate validation compares the sum of all counts and assigned model volumes by volume group. Disaggregate validation compares the individual count and model assignment at a specific location. The volume groups and aggregate validation standards used for the CYMPO model validation is listed in Table 4.

Table 4 - Volume Group Validation Guidelines

| Volume Group <br> (vpd) | Number of Count <br> Locations | Validation Guideline <br> Aggregated | Validation Guideline <br> Disaggregated |
| :--- | :---: | :---: | :---: |
| $\mathbf{0}$ to 4,500 | 71 | $+/-10 \%$ | $48 \%$ |
| $\mathbf{4 , 5 0 0}$ to $\mathbf{1 0 , 0 0 0}$ | 37 | $+/-10 \%$ | $36 \%$ |
| $\mathbf{1 0 , 0 0 0}$ to $\mathbf{1 5 , 0 0 0}$ | 17 | $+/-10 \%$ | $31 \%$ |
| $\mathbf{1 5 , 0 0 0}$ to $\mathbf{2 0 , 0 0 0}$ | 16 | $+/-10 \%$ | $28 \%$ |
| $>\mathbf{2 0 , 0 0 0}$ | 31 | $+/-10 \%$ | $24 \%$ |

(vpd) vehicles per day

Figure 4 - Existing Roadway Functional Classification


## 3 Model Validation Results

Once the model validation database was in place, the focused model was run. The results of the traffic assignments were compared to the validation database and, through an iterative process, adjustments were made to model inputs and parameters until the model validation targets were met. The first step in model validation is to ensure the model is accurately estimating the number of trips within the region and that the distribution of those trips within the region is correct.

Over 50 validation runs were completed to validate the CYMPO Model. After each validation run the model assigned volumes were compared to the daily traffic counts for each of the validation categories identified in Section 2 of this report. This was an iterative process. At each successive model run, inputs and parameters were adjusted until further changes to the model no longer improved overall model validation.

On a daily basis the CYMPO model results in the following ${ }^{1}$ :

- Trips Per Person 3.5
- Trips Per household 7.5
- Assigned Trips 457,773
- Vehicle Miles of Travel 3,630,901
- Vehicle Hours of Travel 103,392
${ }^{1}$ VMT/VHT do not include centroid connectors
Figure 5 show the traffic assigned volumes for the CYMPO region.


### 3.1 Cordon and Screen Line Results

The CYMPO model accurately estimates existing daily traffic in the CYMPO region. Regional level validation statistics show the following results:

- Cordon Validation: model assigned trips to counts within $1 \%$
- Screen Line Validation: model assigned trips to total screen line volumes within 3\%
- Total assigned volumes compared to total counts within $5 \%$

Table 5 lists the validation results for the cordon lines, Table 6 lists the validation results at the regional screen lines, Table 7 lists the validation results for each functional classification category, and Table 8 lists the validation results for each volume group level.

Table 5 - Cordon Line Validation Results

| Roadway | Location | Counts | Volume | Percent <br> Error |
| :--- | :---: | :---: | :---: | :---: |
| SR 89 | N. of Prescott Ranch Rd | 3,601 | 3,664 | $1.7 \%$ |
| SR 89A | N. of FS 104 | 1,412 | 1,474 | $4.4 \%$ |
| I17 | N. of SR 169 | 34,404 | 34,074 | $1.0 \%$ |
| I17 | S. of SR 69 | 39,579 | 39,613 | $0.1 \%$ |
| Senator Highway | S. of Marapai Rd | 1,554 | 1,553 | $0.1 \%$ |
| SR 89 | S. of Indian Creek Rd | 2,375 | 2,470 | $4.0 \%$ |
| Copper Basin Rd | W. of Forest Rd | 532 | 531 | $0.2 \%$ |
| Iron Springs Rd | E. of Tonto Rd | 2,139 | 2,176 | $1.7 \%$ |
| Williamson Valley Rd | N. of FS 21 | 70 | 69 | $1.4 \%$ |
| Big Chino Rd | N. of FS 330 | 2,900 | 2,899 | $0.0 \%$ |
| TOTAL |  | $\mathbf{8 8 , 5 6 6}$ | $\mathbf{8 8 , 5 2 3}$ | $\mathbf{0 . 0 \%}$ |

Table 6 - Screen Line Validation Results

| Screenline <br> Number | Location | Counts | Volume | Percent <br> Error |
| :--- | :---: | :---: | :---: | :---: |
| $\mathbf{1}$ | North Prescott | 49,269 | 52,252 | $6.1 \%$ |
| $\mathbf{2}$ | Prescott/Prescott Valley | 74,563 | 78,992 | $5.9 \%$ |
| $\mathbf{3}$ | North of 89A | 28,205 | 29,839 | $5.8 \%$ |
| $\mathbf{4}$ | North Prescott Valley | 14,324 | 13,526 | $5.6 \%$ |
| $\mathbf{5}$ | Prescott Valley | 46,444 | 47,199 | $1.6 \%$ |
| $\mathbf{6}$ | Prescott Valley | 56,959 | 56,644 | $0.6 \%$ |
| TOTAL |  | $\mathbf{2 6 9 , 7 6 4}$ | $\mathbf{2 7 8 , 4 5 2}$ | $\mathbf{3 . 2 \%}$ |

Table 7 - Facility Type Validation Results

| Facility Type | Validation <br> Guideline | Counts | Model | Percent <br> Error |
| :--- | :---: | :---: | :---: | :---: |
| Freeway | $+/-7 \%$ | 218,375 | 222,022 | $1.7 \%$ |
| Major Arterial | $+/-10 \%$ | 712,415 | 725,408 | $1.8 \%$ |
| Minor Arterial | $+/-15 \%$ | 607,844 | 594,176 | $2.2 \%$ |
| Collectors | $+/-20 \%$ | 233,385 | 207,679 | $11.0 \%$ |

Table 8 - Volume Group Validation Results

| Volume Group <br> (vpd) | Validation <br> Guideline | Count | Model | Percent <br> Error |
| :--- | :---: | :---: | :---: | :---: |
| $\mathbf{0}$ to 4,500 | $+/-10 \%$ | 136,466 | 129,294 | $5.3 \%$ |
| $\mathbf{4 , 5 0 0}$ to $\mathbf{1 0 , 0 0 0}$ | $+/-10 \%$ | 265,496 | 258,135 | $2.8 \%$ |
| $\mathbf{1 0 , 0 0 0}$ to 15,000 | $+/-10 \%$ | 207,946 | 204,666 | $1.6 \%$ |
| $\mathbf{1 5 , 0 0 0}$ to $\mathbf{2 0 , 0 0 0}$ | $+/-10 \%$ | 264,251 | 257,998 | $2.4 \%$ |
| $\mathbf{> 2 0 , 0 0 0}$ | $+/-10 \%$ | 897,860 | 899,192 | $0.1 \%$ |

Figure 5 - Validation Results: Average Daily Traffic


Appendix E - Needs Analysis

2030 Needs

| Segment Reference | VMT | Pavement | Bridge | Mobility | Safety | Overall Segment Need | Corridor Need |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fain Rd (Segment 1) | 67,168 | 0.00 | 0.00 | 0.08 | 1.76 | 0.46 | 0.46 |
| Glassford Hill Rd (Segment 1) | 51,770 | 0.00 | N/A | 0.38 | 1.37 | 0.58 |  |
| Glassford Hill Rd (Segment 2) | 33,162 | 0.00 | 0.00 | 0.29 | 0.11 | 0.10 | 0.39 |
| Gurley St (Segment 1) | 13,738 | 0.00 | N/A | 0.23 | 0.40 | 0.21 |  |
| Gurley St (Segment 2) | 9,901 | 0.00 | N/A | 0.23 | 5.40 | 1.88 |  |
| Gurley St (Segment 3) | 11,303 | 0.00 | 1.50 | 0.08 | 0.62 | 0.55 | 0.79 |
| Iron Springs Rd (Segment 1) | 24,255 | 0.00 | N/A | 0.00 | 1.32 | 0.44 |  |
| Iron Springs Rd (Segment 2) | 9,628 | 0.00 | 1.80 | 0.08 | 2.47 | 1.08 | 0.62 |
| Lakeshore Dr (Segment 1) | 7,746 | 0.00 | N/A | 0.23 | 3.41 | 1.21 |  |
| Lakeshore Dr (Segment 2) | 5,576 | 1.13 | 0.00 | 0.00 | 2.01 | 0.78 |  |
| Lakeshore Dr (Segment 3) | 1,310 | 0.00 | N/A | 0.23 | 0.00 | 0.08 | 0.95 |
| Montezuma St (Segment 1) | 16,063 | 0.00 | 0.00 | 0.00 | 1.03 | 0.26 |  |
| Montezuma St (Segment 2) | 6,410 | 0.00 | N/A | 0.03 | 0.36 | 0.13 |  |
| Montezuma St (Segment 3) | 3,960 | 0.00 | N/A | 0.23 | 0.59 | 0.27 | 0.23 |
| Mt Vernon Ave (Segment 1) | 5,137 | 0.00 | N/A | 0.23 | 0.25 | 0.16 | 0.16 |
| Outer Loop Rd (Segment 1) | 5,336 | 0.00 | N/A | 0.08 | 0.27 | 0.12 |  |
| Outer Loop Rd (Segment 2) | 11,951 | 0.00 | 0.00 | 0.08 | 2.12 | 0.55 | 0.42 |
| Pioneer Pwky (Segment 1) | 16,166 | 0.00 | N/A | 0.08 | 0.00 | 0.03 |  |
| Pioneer Pwky (Segment 2) | 17,717 | 0.00 | N/A | 0.08 | 0.11 | 0.06 | 0.04 |
| Prescott Lakes Pkwy (Segment 1) | 42,609 | 0.00 | 0.00 | 0.23 | 0.18 | 0.10 |  |
| Prescott Lakes Pkwy (Segment 2) | 8,133 | 0.00 | N/A | 0.23 | 3.30 | 1.17 | 0.27 |
| Robert Rd (Segment 1) | 6,891 | 0.00 | N/A | 0.23 | 1.85 | 0.69 |  |
| Robert Rd (Segment 2) | 15,493 | 0.11 | N/A | 0.23 | 0.34 | 0.23 |  |
| Robert Rd (Segment 3) | 12,344 | 0.00 | N/A | 0.23 | 1.64 | 0.62 | 0.46 |
| Rosser Rd (Segment 1) | 13,144 | 0.00 | N/A | 0.23 | 0.30 | 0.17 | 0.17 |
| Senator Hwy (Segment 1) | 5,621 | 0.00 | N/A | 0.23 | 4.65 | 1.63 | 1.63 |
| Sheldon St (Segment 1) | 8,188 | 0.00 | N/A | 0.23 | 2.34 | 0.86 |  |
| Sheldon St (Segment 2) | 3,898 | 0.00 | N/A | 0.26 | 0.47 | 0.24 | 0.66 |
| Smoke Tree Ln (Segment 1) | 8,792 | 0.90 | N/A | 0.23 | 0.87 | 0.66 | 0.66 |
| SR 169 (Segment 1) | 18,310 | 0.00 | 0.00 | 0.28 | 0.33 | 0.15 | 0.15 |
| SR 69 (Segment 1) | 187,482 | 0.00 | 0.59 | 0.08 | 1.68 | 0.59 |  |
| SR 69 (Segment 2) | 63,005 | 0.00 | N/A | 2.50 | 2.19 | 1.56 |  |
| SR 69 (Segment 3) | 37,382 | 0.56 | N/A | 2.77 | 1.10 | 1.48 |  |
| SR 69 (Segment 4) | 47,277 | 0.00 | 0.00 | 1.79 | 0.38 | 0.54 |  |
| SR 69 (Segment 5) | 80,942 | 0.00 | N/A | 1.23 | 0.56 | 0.60 |  |
| SR 69 (Segment 6) | 80,136 | 0.00 | 0.00 | 0.23 | 1.27 | 0.37 | 0.74 |
| SR 89 (Segment 1) | 48,161 | 0.53 | 0.00 | 0.08 | 0.20 | 0.20 |  |
| SR 89 (Segment 2) | 69,096 | 0.00 | 0.00 | 2.04 | 1.52 | 0.89 |  |
| SR 89 (Segment 3) | 166,736 | 0.00 | 0.00 | 0.46 | 2.58 | 0.76 |  |
| SR 89 (Segment 4) | 123,951 | 0.00 | 0.00 | 0.42 | 0.72 | 0.29 |  |
| SR 89 (Segment 5) | 52,537 | 0.00 | 0.00 | 1.15 | 2.43 | 0.89 | 0.61 |
| SR 89A (Segment 1) | 112,992 | 0.00 | 0.00 | 0.08 | 1.07 | 0.29 |  |
| SR 89A (Segment 2) | 9,902 | 0.00 | 0.00 | 0.08 | 4.40 | 1.12 | 0.35 |
| Whipple (Segment 1) | 22,203 | 0.00 | N/A | 0.00 | 1.33 | 0.44 | 0.44 |

2030 Needs (cont'd)

| Segment Reference | VMT | Pavement | Bridge | Mobility | Safety | Overall <br> Segment <br> Need | Corridor <br> Need |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White Spar (Segment 1) | 7,375 | 0.00 | 0.00 | 0.23 | 3.34 | 0.89 | 0.89 |
| Williamson Valley Rd (Segment 1) | 27,591 | 0.00 | 0.00 | 0.08 | 0.02 | 0.02 |  |
| Williamson Valley Rd (Segment 2) | 65,308 | 0.00 | 0.00 | 0.08 | 0.38 | 0.11 |  |
| Williamson Valley Rd (Segment 3) | 32,641 | 0.00 | 0.50 | 0.08 | 0.00 | 0.14 | 0.10 |
| Willow Creek Rd (Segment 1) | 108,143 | 0.00 | 0.00 | 0.21 | 1.91 | 0.53 |  |
| Willow Creek Rd (Segment 2) | 43,971 | 0.00 | 0.00 | 1.22 | 0.51 | 0.43 |  |
| Willow Creek Rd (Segment 3) | 33,852 | 0.00 | 0.00 | 0.30 | 0.00 | 0.07 | 0.42 |
| Willow Lake Rd (Segment 1) | 16,385 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.08 | 3.83 | 1.30 | 1.30 |
|  |  |  |  |  |  |  |  |
| REGIONAL NEED | $1,898,791$ | 0.03 | 0.09 | 0.53 | 1.32 | 0.54 |  |

2045 Needs

| Segment Reference | VMT | Pavement | Bridge | Mobility | Safety | Overall <br> Segment <br> Need | Corridor <br> Need |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fain Rd (Segment 1) | 67,168 | 0.00 | 0.00 | 0.08 | 1.76 | 0.46 | 0.46 |
| Glassford Hill Rd (Segment 1) | 51,770 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.44 | 1.37 | 0.60 |  |
| Glassford Hill Rd (Segment 2) | 33,162 | 0.00 | 0.00 | 0.87 | 0.11 | 0.24 | 0.46 |
| Gurley St (Segment 1) | 13,738 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 0.40 | 0.21 |  |
| Gurley St (Segment 2) | 9,901 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 5.40 | 1.88 |  |
| Gurley St (Segment 3) | 11,303 | 0.00 | 1.50 | 0.08 | 0.62 | 0.55 | 0.79 |
| Iron Springs Rd (Segment 1) | 24,255 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.43 | 1.32 | 0.58 |  |
| Iron Springs Rd (Segment 2) | 9,628 | 0.00 | 1.80 | 0.08 | 2.47 | 1.08 | 0.73 |
| Lakeshore Dr (Segment 1) | 7,746 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 3.41 | 1.21 |  |
| Lakeshore Dr (Segment 2) | 5,576 | 1.13 | 0.00 | 0.00 | 2.01 | 0.78 |  |
| Lakeshore Dr (Segment 3) | 1,310 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 0.00 | 0.08 | 0.95 |
| Montezuma St (Segment 1) | 16,063 | 0.00 | 0.00 | 0.00 | 1.03 | 0.26 |  |
| Montezuma St (Segment 2) | 6,410 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.03 | 0.36 | 0.13 |  |
| Montezuma St (Segment 3) | 3,960 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 0.59 | 0.27 | 0.23 |
| Mt Vernon Ave (Segment 1) | 5,137 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 0.25 | 0.16 | 0.16 |
| Outer Loop Rd (Segment 1) | 5,336 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.08 | 0.27 | 0.12 |  |
| Outer Loop Rd (Segment 2) | 11,951 | 0.00 | 0.00 | 0.08 | 2.12 | 0.55 | 0.42 |
| Pioneer Pwky (Segment 1) | 16,166 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.08 | 0.00 | 0.03 |  |
| Pioneer Pwky (Segment 2) | 17,717 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.08 | 0.11 | 0.06 | 0.04 |
| Prescott Lakes Pkwy (Segment 1) | 42,609 | 0.00 | 0.00 | 0.23 | 0.18 | 0.10 |  |
| Prescott Lakes Pkwy (Segment 2) | 8,133 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 3.30 | 1.17 | 0.27 |
| Robert Rd (Segment 1) | 6,891 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 1.85 | 0.69 |  |
| Robert Rd (Segment 2) | 15,493 | 0.11 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 0.34 | 0.23 |  |
| Robert Rd (Segment 3) | 12,344 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 1.64 | 0.62 | 0.46 |
| Rosser Rd (Segment 1) | 13,144 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 0.30 | 0.17 | 0.17 |
| Senator Hwy (Segment 1) | 5,621 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 4.65 | 1.63 | 1.63 |
| Sheldon St (Segment 1) | 8,188 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.29 | 2.34 | 0.88 |  |
| Sheldon St (Segment 2) | 3,898 | 0.00 | $\mathrm{~N} / \mathrm{A}$ | 0.26 | 0.47 | 0.24 | 0.67 |
| Smoke Tree Ln (Segment 1) | 8,792 | 0.90 | $\mathrm{~N} / \mathrm{A}$ | 0.23 | 0.87 | 0.66 | 0.66 |
| SR 169 (Segment 1) | 18,310 | 0.00 | 0.00 | 0.87 | 0.33 | 0.30 | 0.30 |

## 2045 Needs (cont'd)

| Segment Reference | VMT | Pavement | Bridge | Mobility | Safety | Overall Segment Need | Corridor Need |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SR 69 (Segment 1) | 187,482 | 0.00 | 0.59 | 0.28 | 1.68 | 0.64 |  |
| SR 69 (Segment 2) | 63,005 | 0.00 | N/A | 2.77 | 2.19 | 1.65 |  |
| SR 69 (Segment 3) | 37,382 | 0.56 | N/A | 3.12 | 1.10 | 1.59 |  |
| SR 69 (Segment 4) | 47,277 | 0.00 | 0.00 | 2.11 | 0.38 | 0.62 |  |
| SR 69 (Segment 5) | 80,942 | 0.00 | N/A | 1.52 | 0.56 | 0.69 |  |
| SR 69 (Segment 6) | 80,136 | 0.00 | 0.00 | 0.23 | 1.27 | 0.37 | 0.80 |
| SR 89 (Segment 1) | 48,161 | 0.53 | 0.00 | 0.08 | 0.20 | 0.20 |  |
| SR 89 (Segment 2) | 69,096 | 0.00 | 0.00 | 2.61 | 1.52 | 1.03 |  |
| SR 89 (Segment 3) | 166,736 | 0.00 | 0.00 | 1.17 | 2.58 | 0.94 |  |
| SR 89 (Segment 4) | 123,951 | 0.00 | 0.00 | 0.98 | 0.72 | 0.43 |  |
| SR 89 (Segment 5) | 52,537 | 0.00 | 0.00 | 2.04 | 2.43 | 1.12 | 0.76 |
| SR 89A (Segment 1) | 112,992 | 0.00 | 0.00 | 0.08 | 1.07 | 0.29 |  |
| SR 89A (Segment 2) | 9,902 | 0.00 | 0.00 | 0.08 | 4.40 | 1.12 | 0.35 |
| Whipple (Segment 1) | 22,203 | 0.00 | N/A | 0.09 | 1.33 | 0.47 | 0.47 |
| White Spar (Segment 1) | 7,375 | 0.00 | 0.00 | 0.23 | 3.34 | 0.89 | 0.89 |
| Williamson Valley Rd (Segment 1) | 27,591 | 0.00 | 0.00 | 0.20 | 0.02 | 0.06 |  |
| Williamson Valley Rd (Segment 2) | 65,308 | 0.00 | 0.00 | 0.10 | 0.38 | 0.12 |  |
| Williamson Valley Rd (Segment 3) | 32,641 | 0.00 | 0.50 | 0.08 | 0.00 | 0.14 | 0.11 |
| Willow Creek Rd (Segment 1) | 108,143 | 0.00 | 0.00 | 1.02 | 1.91 | 0.73 |  |
| Willow Creek Rd (Segment 2) | 43,971 | 0.00 | 0.00 | 2.14 | 0.51 | 0.66 |  |
| Willow Creek Rd (Segment 3) | 33,852 | 0.00 | 0.00 | 0.81 | 0.00 | 0.20 | 0.62 |
| Willow Lake Rd (Segment 1) | 16,385 | 0.00 | N/A | 0.19 | 3.83 | 1.34 | 1.34 |
| REGIONAL NEED | 1,898,791 | 0.03 | 0.09 | 0.83 | 1.32 | 0.62 |  |

Appendix F - Public Participation

## Phase 1: Drop a Pin Module - full responses

Could there be any business services to the stores, library, and busnises from this area
Connect Granite Dells Parkway with the Phippin Roundabout.
Need three lanes and better circulation in general through Prescott Valley.
Need alternative connections for residents of Pronghorn, Viewpoint and unincorporated county residents.
The fact that south-bound travelers on 89 cannot go east on 69 at this juncture is huge. The Yavpe Connector is extremely slow so most people avoid it - and go west into Prescott on Sheldon, turn left at Rush and left on Gurley - creating a lot of extra traffic...

89/89A intersection is approaching gridlock and will accelerate as Deep Well Ranch construction and residential occupancy increases. Will cause use of Phippen roundabout and alternate traffic through Walden Ranch once it opens to through traffic.

2 lane bottleneck through 89 in Granite dells will be approaching capacity soon causing increased use of alternate routes on Willow Lake road.

Increased traffic at intersection of Gurley and Montezuma (89) causing gridlock due to no right turn only lane northbound.

Increasing traffic southbound on Willow Creek causing backup on left turn lane(s) to Whipple st.
Intersection of Smoke Tree and Willow Creek does not give east bound traffic enough room when turning from Willow Creek. The intersection is dangerous and should be squared off rather than rounded.

Lights on highway 69 need to be syncronized to allow traffic free flow. When doing the limit you should not have to stop at every light. They need to be coordinated.

Increase the speed to 55 between the Sprouts shopping area and the entrance to Prescott. 45 mph is too slow for a divided highway.

It frustrates me that there is so little public transportation in the Quad Cities. When people ask me whether to move to Prescott or Cottonwood, I tell them if they plan on growing old they should move to Cottonwood where at least there is decent bus service and a real support of door to door for the elderly going to medical services. What we have over here is a fig leaf hiding an enormous lack of mobility.

Excited to see everything happening out here - The is the direction Prescott should be going!!
Extend Glassfor Hill to Chino to bypass the airport
SR 69 from Prescott to Fain Road needs more lanes.
The on and off ramps to 89A are in need of new pavement badly.
The Pioneer Parkway and Willow Creek Road traffic signal needs to have the timing adjusted for the morning commute because there are way too many cars and they can't get through without waiting or they are running the red left turn arrow

Highlands ranch home built 2017
We must have more than one exit to the rest of Prescott Valley for all the homes in Viewpoint, Proughorn Ranch, Piquito Valley and Antelope Meadows.

Public transportation is desperately needed from Paulden to Chino, Prescott, and Prescott Valley.

This intersection is a disaster waiting to happen. Traffic converges onto Kachina Place from the north from the gas station and Hwy 69. It converges from the south from Manzanita Blvd and from 69. If there are vehicles on Kachina PI waiting to get onto Hwy 69, traffic from 69 turning into Kachina PI must be aware of traffic from Kachina PI, the gas station and Manzanita Blvd. Perhaps adding a lane in each direction to Kachina place from the Post Office to 69 would help.

Hey 69 through Prescott Valley is very tedious to drive. I have to go to Phoenix (from prescott) fairly often. It is painful, sometimes having to stop at every light! Perhaps limit number of lights, reduce left turns and access to rt 69 through PV.

Most traffic exiting Yavapai College after events at the Performing Arts Center uses the left lane and turns left onto Sheldon St. The center lane is only allowed to proceed straight through the intersection and has many fewer vehicles than the left lane. This creates a huge backlog of vehicles in the left lane and dramatically slows the clearing of the parking lot after these events. A very simple fix would be to allow the center lane to turn left along with the left lane. Painting arrows and a dashed line to guide left turning vehicles in both left and center lanes may be all that is required. John Bauer, \#\#\#-\#\#\#\#

The Dells are archaeologically significant and represent a scenic gateway to greater Prescott from scenic 89 and should be protected from making this a four lane. Rather, planners should focus traffic towards Willow creek rd for the increased demand.

Williamson Valley Rd needs to either be widened to 4 lanes or have a center turn lane added to make it safer. l've seen too many accidents here caused by attempting to turn left during mornings or afternoons.

Windsong between 69 and Florentine should be widened to four lanes with a center median. There is a lot of congestion.

Larry Caldwell needs direct access to Pioneer Parkway rather having to go through the lights on 89.
As the only real western access to our region, Iron Springs Road has seen it's traffic increased dramatically. With the added concern now of more Truck Traffic from the Okay by the BLM re-opening of the Kirkland Mine. More accidents and fatality's are to be expected. Not to mention that this route is an alternative for $\mathrm{I}-17$ when it shuts down. Widing this road to four lanes would seem the right thing to do. But hardly to be expected. At the very least it needs some passing lanes added. Even though most of this road is out of CYMPO boundaries it does affect our area a lot. I would hope that CYMPO has some serious input on this. Edward Tobolik Skull Valley \#\#\#-\#\#\#-\#\#\#\#

Pedestrian and cycling is a real issue for us. Roads in our area are typically narrow and contending with large vehicles, trucks with livestock trailers, garbage trucks, etc. I don't want to loose our "country" feel but hard to share the road.

The timing of traffic signals on 69 between Downtown Prescott through Prescott Valley is off and creates frustration for motorists travelling the speed limit. Please consider changes to Lee Blvd and 69 to accommodate increased traffic from Touchmark and the apartment complex under construction.

Extend Glassford Hill road into Chino Valley and connect a road to it that goes into Viewpoint and beyond.

Increase speed in the area of 69-from Prescott Gateway Mall to the east side of Prescott Valley-45 is too slow and creates a ton of congestion. Also, time the lights to coincide with the new speed limit.

With all the traffic on HWY 69, the asphalt receives a lot of wear and tear from vehicles everyday. Suggest to redo HWY 69 in concrete from Prescott city limits to 89A in Dewey. Concrete lasts longer than pavement and is environmentally friendly.

Robert Rd traffic has significantly increased in the last couple of years. Would suggest to add a center turn lane for residents. Also add sidewalks on both sides, street lights and underground drainage utilities from northbound Tranquil Blvd to Long Mesa Dr.

Need to extend Pronghorn Ranch Pkwy westbound to Glassford Hill Rd.
Need to add center turn lanes, sidewalks and underground utilities for drainage.
Extend Frorentine Rd east to connect with Valley Rd.
Mendecino Dr should be a diamond interchange bridge that goes over AZ 69 with on/off ramps. Makes traffic safer and reduce accidents.

Enterprise Pkwy should be changed to a diamond interchange bridge with on/off ramps, removes intersection lights and reduces accidents.

Create an on ramp from Hwy 69 northbound to Fain Rd without going through intersection lights.
Need to add street lights.
Need to add sidewalks on both sides of Glassford Hill Rd.
Need to add sidewalks next to Glassford Hill Rd and street lights.
Need to add sidewalks and street lights.
Robert Rd should be a diamond interchange bridge that goes over Fain Rd. Get rid of the intersection lights.

I would like to see public transportation available in the Paulden and Chino Valley areas.
Willow Lakes Rd should be improved to 4 lanes to provide more efficient east west movement from Willow Creek Rd to 89. This is much better option than widening 89 through the Dells as it will better serve more people

Need to widen AZ-169, too much congestion and highway is rough.
Need to widen AZ-89 to 4 lanes north of Chino Valley and Paulden.
A traffic light here would help getting on to Willow Lake Road Westbound from Prescott Lakes Parkway. There are very few holes in the Westbound traffic since the round about was added.

The round about added here has made it harder to get on AZ-89 from any of the nearby side streets. When the light was there, breaks in the flow of traffic were created that allowed side street traffic a way in. The round about smooths out the traffic flow on 89 and makes it almost impossible to get on AZ-89 south bound from say Canyon View Drive. The light was much better.

There is a temporary All Way Stop at the intersection due to construction on Haisley. I would really like to see this be permanent. People turning from East bound Carlton to North bound Mount Vernon often pull way into the traffic lane before stopping (if they do stop) because they can't see around the corner. With the All Way Stop, people are actually stopping and can see each other to decide who should go when.
will we ever really know what is road here and what is property? Can we get the road smoothed out and looking like a road and not weaving into people's properties?

Need to have 2 left turn lanes going northbound on Viewpoint Dr from AZ-89A
Morning traffic and afternoon traffic adds too much congestion. Viewpoint Dr should be widen to 4 lanes.
Pronghorn Ranch Pkwy needs to be widen to 4 lanes, add sidewalks and bike lanes.

Need to add street lights here, blind corner can lead to accidents when making northbound turn onto Coyote Springs Rd.

Lights on Willow Creek near Sandretto need to be re-timed to accommodate the increased traffic. Traffic backs up and is dangerous.

We need more bike lanes to safely ride in \& around the area
New Orchard Ranch North community is now building 200+ homes with the residents to exit onto Fain Road via Sara Jane Lane. Provisions need to be made to slow Fain Road traffic for safe merging.

Chino Valley
Please widen this part of AZ-69 to match the width east and west of this section.
Raise the speed limit in this section
The Robert Rd/Long Mesa intersection can be busy, and turning left from Long Mesa onto Robert often involves some waiting time. A roundabout at this intersection would be helpful and make it less likely for drivers to get impatient and turn onto Robert when it isn't safe. Also, Long Mesa east of Robert Rd. has become very busy. A sidewalk for pedestrians would improve safety.

Need to make this a 4-way stop, too much traffic coming in from AZ-69
Have a better way to travel through this area during winter storms to prevent major accidents.
When Deep Well Ranch is built out, will Symphony/Pioneer need a light?
Highway 69, from the eastern intersection with Hwy 169, and the western edge where Highway89 branches off to the north, ALL needs to be 3 lanes uninterrupted, with added left and right turn lanes of sufficient length.

Highway 89, from the south end where it splits off from Hwy 69, to the north at the intersection with I-40, needs to be 2 lanes, with appropriate left and right turn lanes of sufficient length.

The removal of the rail system has been a detractor for our 45 year old manufacturing plant. Shipping raw material in by truck and finished goods out by truck is increasingly more expensive and thus increasingly a factor driving a decision to relocate out of Prescott.

Bike/Pedestrian trail system is needed as a corridor through Prescott. Refer to the Tony Knowles Trail System in Anchorage, Alaska. A bike/pedestrian corridor allows for safe navigation and reduces bike/pedestrian contact with motorists. I regularly experience aggressive acts from motorists while riding a bike in the current bike lanes and on Prescott roadways without bike lanes marked.

The curbs on Pav Way entering the fast food businesses are too rough. Need to make them smoother and easier on cars.

Valley Rd should directly connect east with Fain Rd, with a bridge going over Agua Fria River. Would cut down on travel time instead of having to drive south, that road is rough with potholes and worn down pavement.

Park View Dr should be extended east out of Pronghorn Ranch and paved all the way to Coyote Springs Rd. Residents need more entry and exit points in case of emergencies.

RAMPS TO A 4 LANE WILLOW CREEK ROAD CONNECTING TO 89A
ROBERT ROAD OVERPASS WITH RAMPS
Cable guard rails would help in sections of AZ-69 to prevent traffic crossovers and accidents.

INTERSTATE 117; CONNECTING EXISTING AZ 169 ( DUEL LANES, LIMITED ACCESS ) TO
EXISTING HIDDEN AZ 48 (FAIN ROAD); PASS THE MESS BEING CREATED AT THE AIRPORT ONTO THE EASTERN CHINO VALLEY - PAULDEN BYPASS, WITH AZ 260 CONNECTOR @ PAULDEN, CONTINUING DUEL LANES TO ASH FORK; ESTIMATED COST , 360 ROUNDABOUTS !, ROUNDABOUTS = ROBERT ROAD OVERPASS AND RAMPS !

There are a significant number of cyclists that use both Poquito Valley Rd. and Viewpoint Rd. in recreation and commuting. A dedicated bike specific lane would give riders a sense of safety and car drivers knowledge that the edge of the road is not to be driven on. I know that although this is the same road, it traverses through both the town of Prescott Valley and Yavapai County.

Make 89a a bicycle commuter highway. Include 89, 69, Williamson Valley Rd. and Fain Rd as well.
When I was a teen in Scottsdale, we didn't have a lot of freeways. Some surface streets had the lights syncronized. I could drive Indian School or Thomas Roads from Scottsdale Road to Grand Avenue across town without hitting a red light if I followed the speed limit. And this was early '80s, before everything was computerized! There were signs posted saying "Drive the speed limit, see more green" with green depicted as a green dot like a light. It worked on two levels. Aside from a smoother trip, drivers could save on fuel and brakes. If we could do this on major corriders like 69 from downtown to Dewey, it would improve traffic flow without building anything and encourage safe speeds.

Complete the rail-trail connecting the Peavine to Chino Valley.
There's no bike lane here. I live in Forbing Park and there's no safe way to get downtown on a bike. It would be nice to at least have a bike route to the YMCA or the grocery store.

When does Pioneer Pkwy get extended west to connect with Iron Springs Rd? There's suppose to be a future West Prescott Loop that connects with US-93 (future I-11).

Make this a 4-way stop.
Ho Kai Gan
I would like to express my dissatisfaction with the proposed Northern connector. It is ridiculous to spend an estimated $\$ 14$ million to save a very few drivers 7 extra miles of driving. I know an expensive study was done, and it has been shelved for the time being. But I would like to shelve it permanently.

Need street lights in this intersection.
Spouse Dr is a busy street with a lot of pedestrians that have no safe place to walk. Would be nice to have sidewalks and street lights.

## WANTED - TARO LANE FREEWAY, WILL ACCEPT GRAVEL AND PIPE DONATION

## NEED BRIDGE

## NEED BRIDGE

## NEED BRIDGE AND REED ROAD INTERSECTION RELOCATION TO EAST OF EXISTING INTERSECTION

Agree with previous statements about adding sidewalks on Glassford Hill Road. P.V. has bits and pieces of pedestrian access (i.e. urban path on highway 69, sidewalks in newer developments and in commercial areas). However, nothing is contiguous. There are no safe routes for pedestrians or bikes to go from
residential areas to commercial areas. Safe non-motorized access might lead to a few less vehicles on the road - and add to community safety.

Need to add street lights, make it more pedestrian friendly especially at night while walking.
Should put in street lights on Lakeshore Dr and redo the multi use path from gravel to concrete. Concrete withstands rain, snow and inclement weather better.

Add sidewalks, street lights and underground utilities for drainage.
A yield sign for cars turning right and merging onto Pioneer Parkway from northbound Willow Creek Rd. might prevent another accident. It's a game of chicken right now.

Long look Dr should have sidewalks, street lights, and underground utilities for drainage.
I love the Dells, but the gridlock is getting bad. Need to explore options for accommodating more traffic.
This curve is way to sharp and needs to be fixed. How many truck crashes will it take before the curve is fixed?

We lost bus service (Citibus gone Feb. 2018) with most of the west side of Prescott (Fry's at Fair St., old DES area out W. Gurley St., Woodland Apartments at W. Gurley, Casa de Pinos at W. Gurley, and apartments further out and around the old DES (former state welfare office). Chino bus (Yavapai Regional Transit - YRT) helps us some with tri-city travel but needs expansion. Paulden kids take the Chino bus to the pool in Chino in the summer but otherwise Paulden seems disconnected from bus service too. Prescott Valley bus there (YRT) and around seems limited too much as well. Chino bus for Chino seems ok. Dewey, Humbolt, Mayer bus service quit with the end of the Greyhound Connect service recently. Coconino-Yavapai van service to Flagstaff -- phone doesn't work so maybe that's gone too. Airport shuttle to Phoenix airport and our airport to Denver and LA are major ways out without a car, except for a car rental.

We don't have a bus connection from the Prescott area to Cottonwood (except for the Sheriff's office prisoner buses). Greyhound maybe could arrange a stop for us at the Interstate-17/Cherry Route junction, for a company with vans to wait there and exchange passengers for North and South travel? This would be good for access to northern routes to Flagstaff/Denver/Amtrak too. Greyhound Connect quit recently in Prescott and they were trying to go to Phoenix on State Route 69 instead with no northern travel options.

People traveling along State route 89 from the Veteran's Hospital and other places a short distance from Prescott along 89 are making a U-turn at the entrance to Prescott to access State route 69. This happens in the road area before the Circle K on E. Gurley St.

Interstate 17 needs more lanes to improve travel time and safety, at least to Phoenix, due to the Southern traffic coming North here for the summer, etc.

Interstate -17 route from Phoenix could use widening for safety considering the volume of cars passing through from there.

The intersection of Long Mesa and Robert Road has gotten dangerous and time consuming at many times of the day. Turning left onto Robert can take many minutes and then eventually people just rush out between oncoming cars to finally turn. People turning right onto Robert get tired of waiting for the person in front of them who is turning left and then pull up beside the left turner in order to turn right themselves, but that blocks the view of the left turner of oncoming traffic. This is the ideal location for a round about! Then traffic can keep flowing during busy times and no one is waiting at a light when traffic is light, but
every one can safely get their turn to turn onto the roadway without waiting 10 minutes. I hope this will be part of the Robert Road expansion coming up.

Busy traffic in the morning, should put in 4 -way stop signs. Long Mesa Drive is unsafe driving southbound onto Robert Rd. Consider adding in a left turn lane, and a right turn lane.

Add street lights on AZ-69 from AZ-169 north to Fain Rd. Difficult to drive at night.
Highway 69 between Prescott and Prescott valley needs a faster speed limit or it needs to drive less like an actual highway. The general consensus of people that o talk to is that it is way too easy to speed on this road.

Lakeshore goes from a single lane to a double lane road when it crosses Robert road. When I drive this road in the morning there's always someone going 40 mph or more. If you increased the size of the median and toned it down to a one lane road you could naturally slow people down without a traffic light or stop sign which would be ideal.

Since many Viewpoint residents are opposed to a 4-lane road through the neighborhood, I would like to suggest a 3 -lane road, like Tuscany Way in the Granville neighborhood. A center turning lane would allow traffic to flow more smoothly. A 3-lane road also tends to favor a lower speed limit, than a 4-lane road would. I agree with another commenter regarding the need for bike lanes along Viewpoint Dr. as well.

Connect Glassford Hill Rd. north towards Chino Valley \& Paulden, along the easternmost ends of these towns, eventually tying in to 89 North. Exit points could include Road 4 South, Center St., Road 2 North, Perkinsville Rd., and Road 5 North.

Connect Park View Dr. westward to an extended N Glassford Hill Rd. For safety reasons, there should be more access points out of the neighborhood. Build a similar East-West Rd. from Poquito Valley to N Glassford extension.

Connecting Pronghorn Ranch Parkway to Glassford Hill Rd. would provide additional access in \& out of northern neighborhoods. Traffic around the Viewpoint/89a interchange is starting to become more congested. This spot (Glassford \& Pronghorn Pkwy) could also be a good area for a grocery store... Super Target?

An east-west road connecting to a Glassford Hill Rd. north extension would make things safer for Poquito Valley residents by providing additional travel options in case evacuation becomes necessary again.

Iron Springs Road is going to become very dangerous to the west of Prescott, due to heavy and presumably slow trucks (from the Kirkland mine) traveling up the hill towards Prescott on the two-lane roadway, with cars caught behind slow uphill trucks that cannot be safely passed. This will likely lead to disastrous crashes from unsafe passing, which may cause the road to be shut down for lengthy spells, creating even more hazards.

Lights on Willow Creek need an upgrade. Left turn lanes with arrows that don't come on with traffic in them. Some arrows come on when there is no traffic wanting to turn left.

From Prescott thru Prescott Valley on SR69, the speeding has become epidemic and there is a visual lack of enforcement in Prescott Valley. There is a need for better enforcement in both areas but Prescott to Prescott Valley is getting better.

Once again, speeding on Glassford Hill Road is becoming epidemic and there is a visual lack of enforcement. In the last two years I have yet to see a Police Vehicle pull over anyone on the road.

Need to have a large shopping center to better serve residents in north PV similar to the Norterra shopping center in Phoenix off Happy Valley Rd and I-17. Super Target, Lowe's, Office Depot, Pet Smart, BevMo, etc.

Suggest to make Old Black Canyon Highway into a paved road between Stoneridge and Prescott Country Club subdivisions.

Suggest to extend Navajo Dr south to connect with Old Black Canyon Highway. It will give the residents of Stoneridge additional entry and exit points, especially for emergencies.

Connect Ranger Road for better access going south.
This intersection going to Maverik and Walmart has horrible asphalt. It's rough, cracked, noisy and can damage vehicle suspension. It needs to be repaved and smooth to drive through.

Add street lights, make if safer for pedestrians to walk at night.
Pedestrian friendly walk-in along Schemmer to the rodeo grounds would be appreciated.
I cannot understand why "they" think a Northern Connector is necessary to save a few people a grand total of 7 miles of driving. The study was done, but under the pretense of needing another escape route in the event of another fire. There are already 10 escape routes and everyone got out safely after the Dolce fire. $\$ 14$ million for this new road is a big number to accommodate just a relatively few people.

This area does not need a Northern Connector Route connecting WVRd and Chino Valley.
I live out at the Mint Creek Ranch off from Sharp's RD out Williamson Valley RD. As far as I have found there is no transportation that goes out this way unless you can afford to call a taxi. I took a taxi from Sprout's off from Sheldon to the Yavapai College and it costed me five dollars. Can not image what it would cost for a trip from home to anywhere in town.

I took the Yavapai Regional Transit a few times and it is very nice. The drivers are all nice. They cater to the people that they pick up. Helping them in and out. Taking care of their baggage. The draw back is that they do not make enough trips during the time they are running. There are four trips on Monday, Tuesday, Thursday and Friday from Chino Valley to Prescott. On Wednesday there are six trips from Chino Valley to Prescott and than to Prescott Valley. You can not depend on them being right on time,but they make up for it in cost and friendliness. We need something in between the Transit and a Taxi.

Needs sidewalks. People have no place to walk safely and incoming traffic is more prone to hit pedestrians.

Valley Rd is a mess. Asphalt is rough, cracked and hard on vehicle suspension. Suggest the city of PV to completely replace pavement and make it new again.

Pavement it rough, has potholes and cracks and could damage suspension. Need to repave road in new asphalt.

A connector from 89a/Fain Road to the east side of the airport bypassing Chino Valley to the north edge of town, then connecting east-west to a northern connector to Williamson Valley Road would make sense.

Mendecino Dr and AZ 69 should have an acceleration lane going up the hill toward PV
Add a center turn lane on Robert Rd and narrow the lanes a couple feet. It would help with traffic and reduce slowdown when people are making left/right turns.

Connect Addis Ave westbound with Glassford Hill Rd. It will be an alternative to using 89A similar to a frontage road. Additional entry and exit points are always good.

Suggest to add street lights along AZ 69, make it more easier to drive visibly at night
AZ 69 needs to have street lights from Stoneridge Dr to Fain Rd. Make driving easier with more visibility at night.

Glassford Hill Rd needs adequate shoulders for bicycle travel, sidewalks, and speed enforcement.
From Pioneer Parkway out to the north the road needs to be widened with safe turn lanes, and adequate and continuous shoulders for bicycle travel.

To facilitate non-vehicle forms of transportation, paths for walking and bicycling should be developed to connect streets. Many times you have to walk many blocks to get around to a street that is just a short ways away if connected by a path. The pin is at what appears to be an unofficial connector path, and more of these are needed. All new street developments within each of our cities should incorporate this kind of planning.

This area does not need a northern connection route
"I bought this property so I could live in a country setting, by running a connector through this area will surely destroy that atmosphere, combine that with the ridiculous amount of property that will be taken, simply on the premise that ""I have more that I can give up than my neighbors"", instead of taking equal amounts out from the center line of the existing roadway, is in fact a very ludicrous statement.

Consider putting the connector further north, where the future growth will certainly be, instead of so close to the current ""Loop"" road"

Eastbound Loos Dr needs a right turn lane going south onto Robert Rd. The center lane with present traffic creates additional backed up congestion. Left turn lane going northbound onto Robert Rd needs a protected green arrow to prevent cross traffic collisions.

This entire intersection should have protected green arrows for left turns to prevent cross traffic from collisions. Also add signs on light posts indicating which lanes are for left turns.

This comment is for the Northern Corridor. I believe the creation of a Northern Corridor from Williamson Valley Rd to AZ89 generally along Center St would be an expensive project that would benefit very few people. Please do not include a plan for the Northern Corridor in the 2045 plan update. Thank you.

Please don't ruin this area with a new northern connector road. It is unwanted, unneeded, and a waste of taxpayer money. The proposed intersection at Nancy Drive would make an already treacherous situation worse.

If the population ever grows to a level that would justify a new northern connector, it should end at Inscription Canyon rather than Nancy Drive. An Inscription Canyon terminus would be safer, shorter, affect fewer properties, and would save taxpayer money as compared to the Nancy Drive plan.

Spend CYMPO's budget to improve the existing main roads enabling traffic to move more efficiently. The condition of the existing roads is deplorable. There is no need to spend money to create new thoroughfares, such as the proposed Northern Connector Road, that will have a detrimental impact on numerous neighborhoods.

Need to connect Pronghorn parkway to Glassford Hill Rd. To many people getting on 89A via Viewpoint just to get off on Glassford go way below the speed limit which makes merging onto 89A at the busier times more difficult. It would be nice to have a frontage road.

We NEED more amenities on the northern part of town. It would help with traffic along Glassford Hill Rd. and 69. Having one gas station and nothing else for all these homes and future homes makes no sense!!

Park View need to connect from Pronghorn Ranch to Viewpoint
Viewpoint need to be widen to four lanes
Longer right hand turning lane into Pronghorn Ranch
Sidewalks, Four lanes
It would be nice if Antelope Meadows Dr. could continue south to a frontage rd. or be able to access 89A.
Sidewalk added on the west side of Antelope Meadows Dr. even if it was a narrow bike lane.
Extremely dangerous place to turn left onto Glassford Hill. Drivers turn into the curb lane ignoring the proper way which is turn into left most lane and then move over. Everybody in a big hurry to get over to turn into Walmart.

Seriously dangerous if have to get over to make a right turn at the college. Recently a bicyclist was in the shoulder furiously pedaling and ignoring the fact trucks and cars need to get over and need to watch for vehicles coming off 89.

Oncoming traffic way too close to the left turn lanes. Most times when waiting for the light to,change to make left turn onto 69,the vehicles coming off 69 left into Stoneridge come so close as to nearly hit vehicles stopped at the light.

It would be great to have an Egress from the backside of Viewpoint towards Chino Valley or even Williams?

Would like safe \& dedicated bike lanes and walking sidewalk from Pronghorn Ranch to the PV library and town square using Viewpoint Drive.

Need dedicated walking and bike lanes from Pronghorn Ranch connecting to Glassford Hill to the trail head, PV library, and town square.

Busy intersection, difficult to see incoming traffic from east/west on Willis St. Adding a 4-way stop will help make it a safer intersection.

This section of AZ-69 is missing sidewalks on both sides of the highway. Needs to be completed along with plenty of street lights and pedestrian friendly.

Make this intersection on westbound Lakeshore Dr a smoother drive. There should be 2 left turn lanes, 1 straight through lane and 1 right turn lane. That will help more traffic flow southbound onto Glassford Hill Rd and easier access to Mavrik and Walmart.

AZ 69 has a lot of traffic throughout the day. There are 7 intersection lights within 2.5 miles from Stoneridge Dr eastbound to Navajo Dr. Recommend redoing AZ 69 in concrete, make it a below grade highway with overpasses and on/off ramps. Doing so will help alleviate the congestion.

Remove the intersection light and make an overpass going over Pioneer Pkwy. Extend the freeway alignment Williamson Valley Rd, it needs to connect with County Rd 10.

There are no safe places for pedestrians to walk. Add sidewalks and street lights, make it pedestrian friendly.

Intersection needs sidewalks, there is no safe place for them to walk.
Add sidewalks here on both side of street when it gets widen to 4 lanes.
The timing of the traffic lights is very frustrating. I would much prefer a smooth flow of traffic (especially during rush hour) than the current system of stopping every car every other light.

This is a dangerous instersection. If you head north on this alley, then you can't see when you turn right. There is a mirror here, which would be useful, but it is frosted over.

There should be a high speed road leading from the west of the city to the east. Whipple currently feeds into the downtown area. It should rather flow into Sheldon as one street and not have as many stoplights. The current setup is confusing for visitors and slows traffic significantly and negatively.

Set the traffic signals to change with better timing. If you are turning left from 69 to Diamond Dr its not uncommon to sit for over five minutes and multiple people get sick of waiting and run the red light. Same goes for turning left onto 69 from Ramada

## Correction Ramada Dr not Diamond Dr

Please widen this part of AZ 69 to match the other sections on highway adjacent to it.
Gail Gardner Way is a dedicated bike route, but no infrastructure has been put in place to deem it as such. No bike lanes, only a simple bike sign. Drivers do not respect the bikers buffer and do not observe the speed limit along this route.

This is the Courthouse square, aka "Prescott's Living Room" and there are limited spaces to securely lock your bike up. On multiple occasions I've seen bikes "For Sale" at bike staples around the square, and bikes locked to benches preventing the intended use of the bench.

West Gurley is a main arterial roadway that should be better policed for speeders, connectivity restored to neighborhoods with sidewalks on both sides of the road to promote accessibility to the downtown core and 4 lanes reduced to 3 even 2 lanes with a median turn lane and dedicated bike lanes along all of West Gurley to the Forest Service Boundary at Thumb Butte Day Use Area from Downtown.

How do we access the quad cities if there is an accident south of Bradshaw Mtn Rd
Hwy 69 needs to be widened to 3 lanes each way, all the way to Prescott from Hwy 169.
Connecting the Sundog Road through here is a terrible plan. We will fight it tooth and nail. It would be just another subsidy for the developers who want to destroy our environment for their own enrichment.

Do not build any new highway bypassing Prescott Valley or Chino Valley. If people are sick of the traffic they should move somewhere else. Stop destroying the grasslands.

Peavine Trail to Chino Valley: I vote YES!
Don't let AED build their road here! A ridiculous idea!

Route 69 needs a wildlife underpass or overpass here
The remaining grasslands between Prescott and Chino Valley should not be fragmented by any new roads or developments. CYMPO should work with state and federal partners to develop a mitigation bank for purchasing an east-west corridor block to preserve as pronghorn habitat, and then build an overpass to allow them to cross highway 89.

Scrap the idea of a new highway up the Big Chino Valley to connect with I-40. A new roadway would facilitate development and groundwater pumping that would threaten the Verde River.

Do not build a new connector between Iron Springs and Williamson Valley. It would cross US Forest Service land which would destroy public lands that are valued for wildlife habitat and recreation.

Signal lights at Glassford Hill Rd. and Long Look Dr need to be looked at for timing, as it seems to take forever to make a left turn off Long Look onto Glassford. Also the 35 MPH speed limit is not enforced very well on Glassford, and the same goes for the 25 MPH speed on Long Look. It could be enforced better than it is. It wouold also be nice if you would enforce the No Parking on Long Look Dr. I live on Long Look and it is very hard to see around the cars that park on the side of the road when I want to pull out.

Williamson Valley Rd needs to be a 5 lane at least north to Outer Loop Rd
When will the Airport loop be completed? We need a Longer runway!
The Iron King Trail should stay a public trail and not become a road or be crossed by any more roads.
Lonesome Valley
This intersection is the most convenient one to take for much of the traffic in PV, but it is always so difficult to get through the light. I frequently have to wait 2 cycles of the light to turn left onto Glassford Hill Road. I would take a different left turn, but they are all equally as difficult to get through. Left turn red arrows are on all the traffic lights, even at times when the traffic is not as heavy. Rethink these intersections to move traffic through here better.

Need a Hospital sign directing drivers to hospital
This roundabout is awesome. It may take the locals some time to learn how to use it... right after they learn to drive. For those of us not collecting SS, it saves a lot of time from every direction.

These public trails, viewsheds and riparian zones need to be preserved at all costs. ANY type of development will further degrade what little wild areas we have left. Please do all you can to protect wild areas in this region, including open space acquisition and protection and regional dedication as open space/park.

I don't think pharma-D'bags should be able to decide what happens with our unique landscapes... I think AED would be better suited to build in a dumpster in downtown tijuana, because they clearly don't care about anything.

Please leave our beautiful wilderness areas as they currently exist. I live off Willow Lake Road, and any changes would affect my quality of life.

The 3 way stop works great no need for a traffic light here!
This is the worst section of public funded roadway in Prescott. There are DIRT roads in better shape then this road

Housing developments along the Peavine Trail and on top of Klein Mesa should not be permitted. Granville and other huge developments continue to expand and can't be supported indefinitely by taxpayer funds for infrastructure, not to mention the damage to our open space and wildlife. There is no reason for this overbuilding except greed - government agencies should be acting on behalf of the quality of life of all the citizens in their jursdictions, not just bloating their tax base and turning a beautiful rural area into another Anthem-like suburb of Phoenix.

Right here is an excellent location for a wildlife corridor. You can see the beautiful herds of pronghorn mass up and try to cross the road here, especially around mating season. It's safer for people and animals to build a wildlife overpass or underpass here. The expense is repaid in tourism $\$ \$$, property values, and civic pride.

Protect the antelope in the wide open spaces. Urban boundaries would be an excellent way to go
I agree that there are enough housing for the 'visitors' moving into the Tri-City area. People move here because of the beauty of the Dells and Watson Lake, the hiking and biking in those areas. If these areas are changed to allow more high-priced housing, the reason they moved here will be gone forever.

I drive this route daily and certainly have no problem driving north and turning left onto Willow Lake road. And I am part of the SS crowd. Drivers need to learn more about how to drive their cars. Local driving schools might be of service to them.

I drive this route daily, headed north and turning left onto Willow Lakes Rd. I'm part of the SS crowd and have no problem making this turn safely. Those that are having a problem should look into taking some driving lessons to better handle their car.

This stretch of Hwy 69 needs some kind of wildlife crossing. I saw a deer get hit by a box truck here. It was horrible.

This intersection needs a stop sign or two or something. There is only a yield sign for the cars coming from the flea market parking lot/veterinary hospital parking lot direction. Cars coming from 2nd street heading west sometimes go straight and it causes a problem for cars going south on PEH who want to turn left onto $2 n d$ street. And vice versa.

I don't know what to do about this strange intersection. Bison Lane turns to the left and changes names to Starlight. There is a yield sign but it must be for the cars going in and out of the school parking lot. But there is no way to tell if someone is going straight from Starlight drive into the parking lot...the car wouldn't have a blinker on because it's not technically turning, BUT cars that DO make the turn onto Bison are still not going to use their blinkers because they are not deviating from the road which turns and changes names at that corner. I nearly $t$-boned a car that went straight into the parking lot and I thought it was just going to turn down Bison like most cars do. If I had known it was going straight, I would have yielded immediately because I had the yield sign. It seems to me that the cars going straight on Starlight into the school parking lot should put their left blinker on because they are deviating from the road. Maybe there should be a sign explaining that. I don't know exactly how to fix that intersection which isn't even an intersection.

Williamson Valley road at the intersection of Iron springs in front of Abia Judd school needs to be patroled when school is in session. Too many cars race through there endangering students and those who do drive the speed limit in that area.

Extreme High Priority! Public transportation is desperately needed from Paulden to Chino, Prescott, and Prescott Valley.

This intersection needs a complete review and reconstruction. Access to the Maverik Gas station is awkward and often vehicles back up to hwy 69. The interior lanes from Maverik to Prescott Country Club Blvd are hazerdous as drivers are anxious and do not clearly see the stop sign or properly yield to traffic on PCC Blvd. Large vehicles like semis and tanker trucks cannot make the turn in and cause frequent tie-ups.

This is not just a "beautiful valley" or "the most buildable land in the area." It is an important wildlife corridor. One of the small amount of wildlife corridors that remain in the area. Please do all you can to protect it from AED development.

We need a wildlife over-pass or under-pass crossing here. Somewhere on highway 69.
We need a wildlife over-pass or under-pass here.
What's with that annoying, recurring, 'double' pothole next to the curb, in the crosswalk, on W-bound White Spar Rd, at the intersection with Copper Basin Rd? The City, or ADOT, not sure who, keeps filling the holes with asphault, only to have to come back again to refill. This has been going on for the three years I've lived in the area. Even the car repair guys at the Honda dealership have mentioned this matter to me when I needed new tires, as in jokingly accusing... "You been driving over that pothole at Copper Basin Rd too fast?" Is it THAT well know, yet hasn't been permanently fixed?

I see this area on maps labeled as "No Name Creek". It's immediately north of the junction of the Peavine and Iron King trails, at the Point of Rocks area in The Dells. It's on 'AED' land. [This area should be City of Prescott land, but that's a whole nuther matter!] This area is a natural wildlife corridor allowing animals to move through this area, along the streambed and under the beautiful cover of the riparian forest. AED wants to build roads and houses here, and channel No Name Creek into huge underground culverts. MAJOR wildlife crossing structures, not just signage, would be needed here if AED is alllowed to move forward with their development plans.

Further slicing and dicing of the Granite Dells area with roads is unacceptable. We need planners to recognize the future of our area is not in asphalt covered housing divisions but as a refuge from city gridlock greedy profiteering. Leave room for Dells regional park and watch YC blossom into an earthly paradise.

In this photo, a look to the east, across the "No Name Creek" wildlife corridor area, as seen from the Iron King Trail in The Dells. If AED is allowed to develop this area into houses and roads, burying the creek in huge underground culverts, major wildlife crossing structures will be needed. I suspect, however, that there is no structural/architectural solution to save this wildlife corridor. If development goes forward, the wildlife will simply be gone from this area, never to return. BIG loss for the Prescott region!

Bus service is needed, frequency and hours of operation extended.
Bus service is needed, frequency and hours of operation extended.
Wildlife corridor!
Wildlife corridor and open public access to the heart of the Dells along watershed and boulders must be preserved and not developed. Protect this area and leave as wild as possible. Thanks.

Constraint on developing alternative routes bypassing the Dells. When developing spend the extra money and do it right to include multiple forms of transportation and address wildlife corridors.

There are many animals killed on the highway here. In the past year alone at the eastbound exit onto Viewpoint, I have seen one dead coyote, and two dead skunks, and if you expand that back to the

Glassford Hill onramp, there has been another dead skunk and a dead racoon. ALL killed by cars. This would be an ideal place to add a wildlife corridor.

This drainage is referred to as No-name Creek, which is one of the last intact wildlife corridors in this area. Planned development would block destroy this land as, according to the development plans, a road is projected to be built here. We need to protect this for its ecosystem value, ecosystem services it provides (such as aquifer recharge), recreational value and public enjoyment, and much more. Our natural world is diminishing, so we need to really focus on preserving ecological "hot spots" like this one.

Iron King and Peavine Rails to Trails are regional assets. Visitors from all over come to Prescott specifically to hike or ride these trails that provide access to a spectacular and unique natural landscape.

Connect Granite Creek Trail with Peavine Trail in coordination with VA and Yavapai Prescott Indian Tribe.
Bike Lane needed on Idylwild Dr.
A bridge for wildlife would be perfect here. There are so many deer traveling in this area
Please do not widen this section of Highway 89. I never encounter traffic jams in this particular stretch of Highway 89. All traffic congestion is north this area and that congestion is caused by road construction, not by the road being only 2 lanes.

There must not be any road construction in this area. This is extremely important wildlife habitat that would be destroyed by any roads being built in this area. Furthermore, there should be no road crossings of the Peavine and Iron King Trails whether they are at, below, or above grade. Road crossings of these publicly owned trails would reduce the quality and character of the open space in this area and would potentially be dangerous for pedestrians and wildlife alike.

This is a critical wildlife corridor along No-Name Creek, a tributary to Granite Creek. No-Name Creek experienced severe flooding as recently as the 2018 monsoon season. There must be no road construction anywhere within this floodplain and important wildlife corridor. New roads in this area would add pollution and sediment directly into Granite Creek and severely degrade or destroy this wildlife corridor.

Gail Gardner Way has signs designating it as a bicycle route, but it has on street parking for most of the way. This makes it bad for bicycling and also dangerous for driving as it is often difficult to see past parked cars at intersections. On Street parking should be not permitted.

Orgeon Avenue would be a good place to improve but not to increase the speed. Many pedestrians and cyclists use this route but is very dangerous. Perhaps a separate multi purpose lane adjacent to the roadway. It could be extended to Idylwild Road as well.
please work with Save the Dells to implement wildlife crossing areas around the new development at the Peavine Trail and around Watson Lake.

It is critical that effective mitigation for the safety of wildlife corridors and trail users be incorporated into the expansion of SR 69. Currently only the portion between Frontier Village and Prescott Parkway is being addressed, but future efforts should extend further east.

Yeah, mine's in the middle of nowhere, yet won't be for long. Some big-city-big-shot is trying to take over the Dells and who knows how far they will stretch their greedy hands to build more houses as long as our City Council and other big-shot people who are supposed to be working for the townsfolk get their pockets full of shiny pennies. Just wait, we keep building Prescott will have news just like Phoenix where crime (drugs, gangs and other violence is just brushed-over because it's a normal every day thing) and
little on how we're one of the few places migrating birds stop by or anything on what we have now. Just another paved paradise for a parking lot.
"People who gripe about the noise from the airport need to be put out of their misery. The airport was there first. You decided to move there... you can leave.

Also, were we not going to expand the airport for bigger planes like a bigger ""puddle jumper"" commuter? Bigger planes = louder noise.

I for one love seeing/hearing the military stuff (Ospreys, helicopters) as well as the big droppers for the fires when they fly in for fuel, water and training."

People, please don't try to pass in the right-turning lane or over the double-yellow. Slow-down or stop when someone is trying to make a left turn onto Rainmaker or Single Tree. I've seen several accidents in this spot because of some fool in a hurry tried to pass or didn't stop.

Create an auxiliary lane from northbound Willow Creek Rd to eastbound Pioneer Pkwy. Auxiliary lane needs to connect with off ramp to AZ 89. Yield sign slows creates congestion and should be removed.

Phase 1: Important Reginal Corridors Module - full responses

| Vehicle Routes | Submissions | Percent of Total | Pedestrian/Bicycle Routes | Submissions | Percent of Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SR 69 | 112 | 60\% | SR 69 | 60 | 35\% |
| SR 89 (North) | 58 | 31\% | Williamson Valley Rd | 55 | 32\% |
| SR 89A | 40 | 21\% | Gurley St | 36 | 21\% |
| Willow Creek Rd | 18 | 10\% | Montezuma St | 23 | 13\% |
| Glassford Hill Rd | 17 | 9\% | Glassford Hill Rd | 19 | 11\% |
| Williamson Valley Rd | 16 | 9\% | Iron Springs Rd | 16 | 9\% |
| SR 89 (South) | 10 | 5\% | Willow Creek Rd | 15 | 9\% |
| Fain Rd | 9 | 5\% | SR 89 (North) | 14 | 8\% |
| Iron Springs Rd | 10 | 5\% | SR 89 (South) | 8 | 5\% |
| Gurley St | 7 | 4\% | SR 89A | 8 | 5\% |
| Sheldon St | 7 | 4\% | Lakeshore Dr | 9 | 5\% |
| SR 169 | 6 | 3\% | Willow Lake Rd | 8 | 5\% |
| Senator Hwy | 5 | 3\% | Robert Rd | 7 | 4\% |
| Rosser Rd | 5 | 3\% | Fain Rd | 5 | 3\% |
| Lakeshore Dr | 4 | 2\% | Prescott Lakes Pkwy | 6 | 3\% |
| Outer Loop Rd | 4 | 2\% | Senator Hwy | 5 | 3\% |
| Robert Rd | 4 | 2\% | Sheldon St | 6 | 3\% |
| White Spar Rd | 3 | 2\% | Smoke Tree Ln | 6 | 3\% |
| Willow Lake Rd | 4 | 2\% | White Spar Rd | 5 | 3\% |
| Montezuma St | 2 | 1\% | Rosser Rd | 5 | 3\% |
| Pioneer Pkwy | 2 | 1\% | SR 169 | 3 | 2\% |
| Prescott Lakes Pkwy | 1 | 1\% | Mount Vernon Ave | 4 | 2\% |


| Vehicle Routes | Submissions | Percent <br> of Total | Pedestrian/Bicycle <br> Routes | Submissions | Percent <br> of Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Smoke Tree Ln | 2 | $1 \%$ | Outer Loop Rd | 3 | $2 \%$ |
| Whipple St | 2 | $1 \%$ | Pioneer Pkwy | 1 | $1 \%$ |
| Mount Vernon Ave | 0 | $0 \%$ | Whipple St | 2 | $1 \%$ |

Phase 1: Transportation Preferences Module - full responses
What is your opinion on the following types of transportation changes/improvements?
New Roadways:

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 132 | $51.97 \%$ |
| Not Favorable | 88 | $34.65 \%$ |
| No Opinion | 34 | $13.39 \%$ |

Additional vehicle lanes

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 169 | $65.76 \%$ |
| Not Favorable | 62 | $24.12 \%$ |
| No Opinion | 26 | $10.12 \%$ |

Full roadway repaving

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 190 | $73.93 \%$ |
| Not Favorable | 29 | $11.28 \%$ |
| No Opinion | 38 | $14.79 \%$ |

Pavement maintenance (filling pot holes/sealing cracks)

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 232 | $88.55 \%$ |
| Not Favorable | 18 | $6.87 \%$ |
| No Opinion | 12 | $4.58 \%$ |

Bridge repairs

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 193 | $75.1 \%$ |
| Not Favorable | 6 | $2.33 \%$ |
| No Opinion | 58 | $22.57 \%$ |

Road shoulder widening

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 142 | $56.35 \%$ |
| Not Favorable | 42 | $16.67 \%$ |
| No Opinion | 68 | $26.98 \%$ |

Lower speed limits

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 76 | $29.57 \%$ |
| Not Favorable | 144 | $56.03 \%$ |
| No Opinion | 37 | $14.4 \%$ |

Roundabout intersections

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 125 | $49.02 \%$ |
| Not Favorable | 110 | $43.14 \%$ |
| No Opinion | 20 | $7.84 \%$ |

New highway interchanges

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 121 | $47.27 \%$ |
| Not Favorable | 72 | $28.13 \%$ |
| No Opinion | 63 | $24.61 \%$ |

New traffic signals

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 98 | $38.43 \%$ |
| Not Favorable | 99 | $38.82 \%$ |
| No Opinion | 58 | $22.75 \%$ |

Additional roadway lighting

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 136 | $53.33 \%$ |
| Not Favorable | 71 | $27.84 \%$ |
| No Opinion | 48 | $18.82 \%$ |

New sidewalks

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 188 | $73.15 \%$ |
| Not Favorable | 30 | $11.67 \%$ |
| No Opinion | 39 | $15.18 \%$ |

New bicycle lanes

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 181 | $69.88 \%$ |
| Not Favorable | 40 | $15.44 \%$ |
| No Opinion | 38 | $14.67 \%$ |

Recreational trails and paths

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 217 | $82.51 \%$ |
| Not Favorable | 22 | $8.37 \%$ |
| No Opinion | 24 | $9.13 \%$ |

Wildlife accommodations

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Favorable | 220 | $83.65 \%$ |
| Not Favorable | 15 | $5.7 \%$ |
| No Opinion | 28 | $10.65 \%$ |

What is your preferred mode of travel for the following types of trips?
Work/commute

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 159 | $60.46 \%$ |
| Bicycle Trip | 32 | $12.17 \%$ |
| Pedestrian Trip | 9 | $3.42 \%$ |
| Not Applicable | 63 | $23.95 \%$ |

School and/or your children's school

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 80 | $30.42 \%$ |
| Bicycle Trip | 18 | $6.84 \%$ |
| Pedestrian Trip | 17 | $6.46 \%$ |
| Not Applicable | 148 | $56.27 \%$ |

Grocery store

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 225 | $84.59 \%$ |
| Bicycle Trip | 26 | $9.77 \%$ |
| Pedestrian Trip | 15 | $5.64 \%$ |
| Not Applicable | 0 | $0 \%$ |

Religious services

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 120 | $45.8 \%$ |
| Bicycle Trip | 13 | $4.96 \%$ |
| Pedestrian Trip | 10 | $3.82 \%$ |
| Not Applicable | 119 | $45.42 \%$ |

Mall/shopping center

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 235 | $88.35 \%$ |
| Bicycle Trip | 12 | $4.51 \%$ |
| Pedestrian Trip | 8 | $3.01 \%$ |
| Not Applicable | 11 | $4.14 \%$ |

Park

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 141 | $53.41 \%$ |
| Bicycle Trip | 55 | $20.83 \%$ |
| Pedestrian Trip | 61 | $23.11 \%$ |
| Not Applicable | 7 | $2.65 \%$ |

Restaurants

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 216 | $80.9 \%$ |
| Bicycle Trip | 22 | $8.24 \%$ |
| Pedestrian Trip | 26 | $9.74 \%$ |
| Not Applicable | 3 | $1.12 \%$ |

Gym/exercise

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 133 | $50.76 \%$ |
| Bicycle Trip | 44 | $16.79 \%$ |
| Pedestrian Trip | 32 | $12.21 \%$ |
| Not Applicable | 53 | $20.23 \%$ |

Visiting neighbors

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 58 | $21.97 \%$ |
| Bicycle Trip | 17 | $6.44 \%$ |
| Pedestrian Trip | 176 | $66.67 \%$ |
| Not Applicable | 13 | $4.92 \%$ |

Visiting friends/family

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 197 | $74.34 \%$ |
| Bicycle Trip | 29 | $10.94 \%$ |
| Pedestrian Trip | 34 | $12.83 \%$ |
| Not Applicable | 5 | $1.89 \%$ |

Recreation/leisure only

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Car/Truck Trip | 147 | $55.26 \%$ |
| Bicycle Trip | 59 | $22.18 \%$ |
| Pedestrian Trip | 55 | $20.68 \%$ |
| Not Applicable | 5 | $1.88 \%$ |

How frequently do you use the following types of roadways for your normal travel patterns?
Neighborhood streets

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Daily | 255 | $90.43 \%$ |
| About once a week | 24 | $8.51 \%$ |
| About once a month | 0 | $0 \%$ |
| Rarely/never use | 3 | $1.06 \%$ |

Minor routes (typically lower traffic, slower speed limits and shorter length roads that provide connection between neighborhood streets and major routes)

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Daily | 220 | $77.74 \%$ |
| About once a week | 50 | $17.67 \%$ |
| About once a month | 5 | $1.77 \%$ |
| Rarely/never use | 8 | $2.83 \%$ |

Major routes (typically moderate/high traffic and speed limits and longer length roads that provide direct connection to highways and major destinations)

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Daily | 186 | $65.72 \%$ |
| About once a week | 84 | $29.68 \%$ |
| About once a month | 12 | $4.24 \%$ |
| Rarely/never use | 1 | $0.35 \%$ |

Highways/freeways (SR69, SR89, SR89A, SR169 and Fain Road)

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Daily | 163 | $57.6 \%$ |
| About once a week | 91 | $32.16 \%$ |
| About once a month | 28 | $9.89 \%$ |
| Rarely/never use | 1 | $0.35 \%$ |

Interstate 17

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Daily | 4 | $1.4 \%$ |
| About once a week | 62 | $21.75 \%$ |
| About once a month | 168 | $58.95 \%$ |
| Rarely/never use | 51 | $17.89 \%$ |

## Phase 1: Changes to Existing Conditions - Q \& A

1. How about the thousands of residents that live on the dirt roads, that the county refuses to maintain. When many of these roads become muddy emergency vehicles can't get through and the streets don't even have signs. We all pay taxes and wonder why some less traved roads are paved and others are not. West Road 2 north, in Chino Valley, has a mud bog that's impassable for months at a time. Windmill has many homes and connecting streets yet none of them are maintained. Two thumbs up.
2. The Town of Prescott Valley's portion of SR 69 is awful to drive through. It takes too long to go a very short distance. Less lights (resulting in the vacation of certain street access to SR 69) and another lane in each direction may help to improve circulation, in addition to limiting left hand turns from Fain Road all the way up to the SR 69/89 split in Prescott. One thumb up.
3. There are an increasing number of spots were there are big ruts, cracks and even chunks of pavement completely missing on 69, 89, and 89A. Three thumbs up.
4. We really need a local, perhaps quad city, bus system. I have visited 2 different towns this year with local bus systems and they are very popular. Prices ranged from $\$ 1$ to $\$ 7$ for single rides around the area. It would be a great investment of public funds for our area. Five thumbs up, one thumb down.
5. I would like to see more attention paid to creating safe walking and bicycling paths or lanes throughout Prescott. Iron Springs Road has unconnected walk ways along it, creating unsafe conditions for pedestrians. The road is not wide enough to provide safety for cyclists. Rather than widening roads, more focus should be placed on alternative forms of transportation and creating safety on the streets for ALL users. Drivers and cyclists need education about how to share the road safely. Six thumbs up.
6. First, thank you for creating this website and for encouraging discussion on topics other than motor vehicles. At least one third of our quad-city residents do not own a car and others cannot afford the cost of driving their car. We need choices. We need streets that invite other modes of transport. I agree with the comments regarding the need for an effective, affordable bus system (daily fixed-route, starting early in the morning and ending after hours) and connecting, high-quality bicycle and pedestrian ways. Avoid widening roads to accomplish this. Use the same corridors, same materials, same budgets, just please shape our roads for people rather than moving more cars faster. An excellent resource for the latest roadway designs that follow this principle is the National Association of City Transportation Officials (NACTO) (website: nacto.org). They are led by your peers transportation officials in cities large and small around the country. Please connect with them and learn the latest about completing our streets for people. Seven thumbs up.
7. Can we get PVPD to patrol Hondo, between Long Mesa and Ranger? There is a valley along that road where residents and even the school bus drivers speed up and down both hills, resulting in accidents and property damage. One thumb up.
8. The transit system has helped many people get around the tri-city area. More busses and extended routes are needed. Folks need to have a car to get back and forth to work or live within walking distance. Prescott Valley community needs service from 69 to 89A. Four thumbs up.
9. With all the homes being built out Glassford Hill Road (and even more planned) how will 69, 89A or even Glassford Hill Road accommodate the increase in vehicles? There are already too many accidents on Glassford and 69. Two thumbs up.
10. Suggest to redo Hwy 69 in Prescott Valley in concrete from Sundog Ranch Rd eastbound to Fain Rd. Concrete lasts longer than asphalt, more prone to wear and tear and is more environmentally friendly. Chip/seal wears out too quickly and isn't smooth. One thumb up.
11. Would like to see Hwy 69 converted into an actual freeway in Prescott Valley, via below grade. Stoneridge, Glassford Hill Rd, Lake Valley Rd, Windsong, Robert Rd, and Navajo Rd intersections would be converted to diamond bridges with on/off ramps that go over Hwy 69. That would eliminate all the intersection lights and redirect traffic off Hwy 69. Two thumbs up.
12. With Prescott Valley and Prescott population combine, adds almost 100k people, there needs to be public bus transportation. Not everybody can afford a car/truck. Would like to see something called 'Yavapai Metro Transit' that serves Cordes Lakes, Mayer, Dewey-Humboldt, PV, Prescott and Chino Valley. Similar cities in population such as Flagstaff and Grand Junction, CO have bus transit that works for their residents. Three thumbs up.
13. Development on the Dells would be destructive to the wildlife and natural beauty of the area. It's a great place for recreation that draws tourists and important tourism revenue. We can't afford the roadway improvements that would be required to accommodate new traffic in that area. Four thumbs up, one thumb down.
14. I 17 should be included in any study. The portion with constant problems lies within Yavapai county. The roadway between Black Canyon City and Cordes Junction should have been widened 20 years ago. Three thumbs up.
15. The condition of Hwy 89 from Chino Valley to Ashfork is horrible. I can feel the rubber ripping off my tires. There have been virtually NO repairs (maybe 2) in years! Especially since the opening of the Drake plant the truck traffic has incredibly increased yet NO repairs to the hwy. Is there anything planned? Many vehicles travel "outside" the travel lanes to avoid the horrible asphalt....might THIS be part of the cause of so many accidents? Three thumbs up.
16. We need better bike routes for safety. We need a public transportation service to run along route 69. There are a lot of seniors that would use this, especially from Mayer to Prescott. Five thumbs up.
17. With all of the new housing developments and the increase in traffic this causes, these new neighborhoods need to be required to be walkable. This would mean more neighborhoods having their own grocery stores restaurants etc so that the residents can walk or bike to them instead of traveling by car. The current roads need to be widened and maintained and sidewalks need to be added. The streets in our neighborhood are narrow and no sidewalks and people drive way too fast and that needs to change. We also need to make rules about the use of the left lane as a passing lane instead of the I'm going to drive slower lane and back up traffic even worse then it already is. It would also be great to have a hotline where people can call and report the license plate numbers of those who are not following the new law of hands free device usage. It's a huge problem that is causing even more traffic issues. Three thumbs up.
18. We desperately need a bike path for cyclists to commute/exercise Without being in traffic. 20 miles paved path would be ideal. Many other towns of our size have this. Look at Grand Junction, CO. Four thumbs up.
19. Both Prescott and Prescott Valley traffic lights are not timed correctly. Years ago I was taught if you drive the speed limit, you will not hit red lights. I understand there are variances, but in these towns, the lights impede traffic. Three thumbs up.
20. Vehicular aggression towards my bike commutes is increasing. Is there any consideration for a bike/pedestrian corridor through Prescott that is removed from the roadway? Refer to the Tony Knowles trail system in Anchorage, Alaska as a successful example. Three thumbs up.
21. INTERSTATE 117,!! , RUNNING FROM EXIT 278 OF I-17, TO EXIT 146 ON I-40 AT ASH FORK, WITH AN AZ 260 COTTONWOOD CONNECTOR AT PAULDEN . STAGNATION OR GROWTH? IT IS YOUR DECISION! One thumb up.
22. INTERSTATE - 117 Is there any sort of regular public transportation in the plans? Two thumbs up.
23. WHY USE THAT PHOTO? I AM INSULTED THAT YOU USE THAT PHOTO, OF THE DEADLIEST INTERSECTION IN THE COUNTY! FINISH THE JOB AND BUILD A OVERPASS FOR ROBERT ROAD! IT REMINDS ME OF PENNSYLVANIA, THE LAND OF BROKEN PROMISES, INCOMPLETE PROJECTS, AND WASTED MONEY! SPEAKING OF WASTED MONEY, ROUNDABOUTS, \$ $1,500,000.00 \mathrm{EACH}=$ A LOT OF ASPHALT ON DIRT ROADS!
24. Expand the current public transit services to more effectively serve all four communities. Yavapai Regional Transit provides basic service in Chino Valley with daily connections to and through Prescott and one day in Prescott Valley. Need six day a week service starting early enough and going late enough to get people to and from work. Need to Connect Dewey Humbolt with Prescott Valley, five or six days a week. Need a local special use taxing district to provide adequate funding. You may not use the bus, but if you need it, you want it there. Just like you may never need to have the fire department come to your house, but you pay for it through your taxes, and you want that fire truck to come when you need it. One thumb up.
25. I am encouraged that CYMPO now has an advisory committee to help them understand the effects of our roads and road planning on our wildlife. I understand that this issue must be addressed, especially when accessing Federal highway funding. Often, it is overlooked because it is not always simple or lowest-cost. But I am convinced that it's money well spent to work meaningful, adequate wildlife corridors into initial planning rather than have to retrofit. And it's safer, with fewer vehicleanimal accidents. Thank you for the opportunity to participate in your surveys. Four thumbs up.
26. Instead of extra lanes we make horse lanes and hitching posts outside businesses. One thumb down.
27. Many of your survey questions are too general to be meaningful. For example-- 1. Are you asking for my opinion about riding a bicycle on these various roads as they exist, OR as they could be improved for safer cycling, OR if I ride on the sidewalks (illegally in Prescott)? 2. Are you asking my opinion about widening roads as needed, continually into the future, if we continue hell-bent with blind growth exacerbated by the fake math (regarding water, traffic, etc) demanded by the developers, OR if we institute some common sense limits on the destruction of our region under the mantra of free and exploitative growth? Three thumbs up.
28. Face to face listening meetings with commuters in service industry jobs would be helpful. Shift workers may not have time or ability to go on the internet. What would most help a housekeeper in a local motel or a nursing assistant at the VA or YRMC hospital get to work. A bus? Free or subsidized bus passes from the employer or local governments? The waiters ,cooks and dishwashers in "everybody's hometown "are often the face of our quad city to tourists. In many metropolitan areas, businesses offer bus passes as a job benefit. One thumb up.
29. I also believe some type of public transit is necessary as Prescott grows. I prefer walking and appreciate safe sidewalks. More and safe bike lanes might encourage people to bike instead of adding to the traffic congestion.
30. I notice daily all the loose debris, small stones, etc on the roads daily. My windshield looks like it has survived an asteroid belt when the sun is at a low angle from all the debris that is sent airborne when vehicles cross into the path of this debris when traveling in the sides and middle of the roads usually outside the marked travel lanes. Also highly prevalent adjacent to turn lanes. More effort needs to be made to sweep this debris from our local roadways. I frequently travel AZ-69 through Prescott Valley. Far to much loose debris on the roadway, turn lanes and shoulders.
31. SR 69 takes way to long to go short distances. the turn in at traffic lights only and lack of access to business turn-ins on major roads like Glassford Hill make you in some cases go way past your destination to turn around and head back. suggesting for the far future to raise or lower the SR 69 and create on/off ramp style access getting rid of the excessive traffic lights. Round about might be optional for some of the lesser accessed roads.
32. This area desperately needs commercial bus or train transportation to other Arizona cities, especially to Phoenix and Flagstaff. MANY seniors will Not drive hwy. 17, the only reasonable route to Phoenix. Since the general Prescott area has such limited medical doctor access, especially for senior medical \& metal health issues!
33. The high-speed, two-way roads, such as Whipple and Willow Creek, feel very dangerous if you're in the fast lane. This is because the only thing between you and the car coming towards you is a double yellow line.
34. I travel the world and no matter what country there is a viable bus system. Yavapai County needs one! Especially with the number of retirees here who are major economic driver for the region, there needs to be a bus system. Many of us will eventually be unable to drive. Also a bus stem would relieve economic pressure on young struggling families where maybe both parents work, but cannot afford to own, maintain and insure two cars.
35. Fix the roads all over the quad cities. They tear up everyones alignment. Fix the duration of traffic lights or build off ramps/overpasses. And for god sake dont put in more roundabouts. Look how well they work for Sedona/Oak Creek area. Takes you hours to go from Oak Creek to Sedona in what used to take 45 minutes. Samething is happening just past the Phippian on 89 going towards Chino they make traffic worse.
36. SH 69 in Prescott Valley between Bradshaw Mt. Road and Navaho is the most frustrating stretch of road in the area. I drive it at least 4 times daily. The traffic sucks! Needs more lanes in each direction, a higher speed limit, strict enforcement of "slower traffic keep right," and prohibition of trucks from the left lane. You see traffic enforcement catching speeders on that stretch all the time, but it's not the speeders who are dangerous, it's the folks driving slow in the left lane which impede traffic flow, frustrating other drivers and causing them to drive aggressively to get around these moving obstacles as well as expressing their displeasure towards the slower drivers.
37. As a bike commuter, I know that an accident is inevitable on Prescott streets and roadways. I cringe every time I hear a loud truck stomping on the gas to get around me and half expect to see a huge black cloud of exhaust being spewed into my face. Aka "Coal Rolling". It's happened, and what goes through my head is catching up and dreaming up all sorts of revenge scenarios against the offender. Dented side panels, slashed tires, busted side mirrors, some kind words exchanged, exercising some 2nd amendment rights. But then I realize we've come to accept that, and other types of behavior here in the SW that is totally unacceptable. Maybe it's the "Californians" that brought it with them when they decided to retire and be grumpy the rest of their lives. Maybe all the nice people live in P.V. or Chino or out Williamson Valley? Where have all the kind hearted people gone? I hope we are setting a trend, that chastising and scaring people is not becoming the norm. We are better, and we could all drive less!
38. There is a great urgent need for wildlife crossing bridges in Yavapai County. On all major highways through the state- and a connectivity system for their migration routes. Two thumbs up.
39. Create a light rail line from Chino through Prescott, PV, and Dewey to Sunset Pt, then a commuter tram connecting to the far north end of the Phoenix light rail line and/or bus network.
40. To fly east from PRC through DEN is too expensive and LAX is too inconvenient. Establish non-stop air service to DFW and/or IAH to allow one-stop fights to the entire east coast.
41. I would like to recommend that a location on Highway 69 between Prescott and Prescott Valley where a short section of state land that exists on both sides of Highway 69 would be an ideal location for a wildlife overpass or underpass that would provide wildlife migration and limit wildlife/traffic conflict. The wildlife corridor would connect Prescott National Forest with State lands contiguous to Glassford Hill and the Granite Dells/Watson Woods Preserve. With growing populations and traffic, this would be a minimal outlay of money that could provide an essential migration route for wildlife including deer, elk, bear, mountain lion, bobcat and smaller wildlife species, and also protect drivers from hitting wildlife on the highway. Thanks for your consideration. One thumb up.
42. The company chosen in PV the time before last was the worst. Oil spray was inconsistent so gravel stuck poorly if at all. None of the companies do it right. It is done on brand new roads and because it is done wrong, it damages the new road wasting money. Stop it!!
43. I recommend PV discontinue doing chip seal and go with the hot tar and asphalt method. It costs more money but the pavement lasts longer and its smoother. Chip seal is just a band-aid solution to the problem.
44. I agree with many of the comments about the difficulty in traveling on SR 69 through Prescott Valley. The increasing population will only make this worse. Something needs to be done to alleviate this congestion.
45. Please assess carefully the needs of the wildlife habitat that will be affected by the new road. Choosing a route that doesn't impact or very minimally impacts current non disturbed habitats is ideal. Keeping in mind the health of plant and animal communities is essential for their well being and carrying on of their species.
46. Bridges for animals to pass safely over, above the road will allow animals to move as they have prior to the new road construction. I haven't read thoroughly your pre construction assessment plans, so please excuse me if what I'm suggesting is already part of your plans. I strongly support environmental assessment, inventory of wildlife of any route you are considering. I used to identify forbs/plants on the National Forest in AZ, which assisted NFS staff to make decisions regarding projects that impact wildlife. I hope you will do similar studies. Thank you for listening! One thumb up.

## Phase 2: Wildlife Connectivity Module - full responses

Would you support the implementation of additional wildlife crossing/warning signs within the CYMPO area?

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Yes | 509 | $94.4 \%$ |
| No | 30 | $5.6 \%$ |

Why not?

| Response | Submissions |
| :---: | :---: |
| There is already enough existing infrastructure | 5 |
| This improvement is not beneficial | 11 |
| This improvement is too expensive | 15 |
| N/A, I do not have an opinion on wildlife crossing/warning signs | 1 |
| Other | 6 |

Would you support the implementation of additional wildlife fencing within the CYMPO area?

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Yes | 500 | $93.1 \%$ |
| No | 37 | $6.9 \%$ |

Why not?

| Response | Submissions |
| :---: | :---: |
| I do not encounter wildlife | 4 |
| There is already enough existing infrastructure | 4 |
| This improvement is not beneficial | 7 |
| This improvement is too expensive | 21 |
| I do not care about wildlife accommodations | 2 |
| N/A, I do not have an opinion on wildlife fencing | 3 |
| Other | 9 |

Would you support the implementation of wildlife detection systems within the CYMPO area?

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Yes | 464 | $86.7 \%$ |
| No | 71 | $13.3 \%$ |

Why not?

| Response | Submissions |
| :---: | :---: |
| I do not encounter wildlife | 3 |
| There is already enough existing infrastructure | 8 |
| This improvement is not beneficial | 13 |
| This improvement is too expensive | 48 |
| I do not care about wildlife accommodations | 2 |
| N/A, I do not have an opinion on wildlife fencing | 2 |
| Other | 15 |

Would you support the implementation of grade-separated wildlife crossings within the CYMPO area?

| Response | Submissions | Percent of Total |
| :---: | :---: | :---: |
| Yes | 496 | $92.4 \%$ |
| No | 41 | $7.6 \%$ |

Why not?

| Response | Submissions |
| :---: | :--- |
| I do not encounter wildlife | 4 |
| There is already enough existing infrastructure | 8 |
| This improvement is not beneficial | 2 |
| This improvement is too expensive | 34 |
| I do not care about wildlife accommodations | 1 |
| N/A, I do not have an opinion on wildlife fencing | 1 |
| Other | 4 |

## Facebook Commentary

Mindy Osburn I'm only in the area one day a month. The thing I notice is that the lights are not timed well.
Like - Reply - Message - $2 w$
(b) 11

* 1 Reply

Nichole Estrada Lucero Public transportation is non-existent here. Yet it is necessary.

Like - Reply - Message - Iw

Jennifer Beach Public transit that actually works would be nice...
Like Reply - Message - 2 w
(1) 8

Hughie Takas Bike Lanes! 1
Like • Reply • Message • Iw
Eve Fazekas Yavapai county METROPOLITAN REALLY © 9 © 0
Like - Reply - Message • 1w


Clyde Wason Is your organization from, modeled after or heavily seeded with californians? Yavapai county appears to have gotten along without any of your control.
Like - Reply - Message - 2 w
ч 5 Replies


Greg Flippen Bike lanes. It's the civilized thing to do.
Like - Reply - Message - 1w

Laura R Willson Bike Lanes.
Like - Reply Message - 1w

Marie Cioffi Save the Dells. (b) 2
Like - Reply - Message - 1w

Andy Hooton How about a system like Cottonwood has CAT. So the disabled and elderly can participate in work and life to its fullest

Like - Reply - Message - 2 w
6. Central Yavapai Metropolitan Planning Organization Andy we are also doing a regional transit implementation study which we will be going out to the public similar to this sometime in May but you can also submit this idea in the Q\&A portion of the modules.
> (6) Central Yavapai Metropolitan Planning Organization Would charging stations for the bikes be a place to start?

Like - Reply - Commented on by Chris Bridges [?] 2 w
4 View 1 more reply
Eve Fazekas WE DO NOT NEED PUBLIC TRANSPORTATION! Really, this is a SMALL TOWN keep it sol Ride a bike, walk or taxi. You need public transportation MOVE TO A BIG CITYI Don't bring your nonsense herell!

Like - Reply - Message - 1w
42 Replies
Julie Knourek Rayda A bus route around the neighborhoods to downtown and maybe the mall sure would be nice.

Like - Reply-Message - $2 w$
Most Relevant is selected, so some replies may have been filtered out
6. Central Yavapai Metropolitan Planning Organization Julie Knourek Rayda I will be passing this along to our transit implementation plan team thank youl

Like - Reply Commented on by Chris Bridges [?] - 2 w
4 View 1 more reply

Robert Kaufman I believe that it is possible to have some form of limited public transit in Prescott.
But please keep in mind that the roads and highways are already getting busy in the afternoons. I know it is not as busy as a major cily, Thank goodness...But, add... See More

Like - Reply - Message - 1w

Kelli Acker A trolley? Miss the trolley.
Like • Reply • Message • iw
Brandon Montoya A sidewalk on Coronado would be nice given that it is a double lined roadway and in very close proximity to Lincoln School. It seems like a liability not to have a sidewalk on that street.
Like - Reply - Message • fw

Darlene Chamberlin Can we get cheap transportation in Cordes Lakes if people don't drive....If we have to go shopping in PrescottPrescott Valley?

Like - Reply - Message - 2 w
4 1 Reply
Susan Hofford Schneiter The only way a Bus would work is if tax payers subsidize it. There is just not enough riders now ...If the bus system had regular prediclable stops in a few years it may work but it would require a long term commitment.
But there are still a lot of pr... See More
Like - Reply - Message - 1w

## Tina Rytting Tim Rytting Inger Johnson

Like - Reply - Message - 2 w

Vince Ramos How about raising soeed limits on larger roads! Its ridiculous to drive at 25 mph on a four lane road. Those should be at least 30-35 mph roads.

Like - Reply-Message - 1w

Steve Pearson How about a bullet train? Probably buy one cheap from California since they abandoned their boondoggle.

Like - Reply - Message - 2w
42 Replies
Susan Kay Quick I'm a senior citizen who drives but I'm now without a car. I used Citi Bus until they quit running. Taxis are expensive on a fixed


Kellie Benway Sidewalks on Thumb Butte road
Like - Reply - Message - 2w
69. Gentral Yavapai Metropolitan Planning Organization Thank you Kellie good idea!

Like - Reply - Commented on by Chris Bridges [?] - 2w

Central Yavapai Metropolitan Planning Organization Thank you everyone for the feedback! So far we have received $600+$ comments and ideas! If you would like to come and have some of your questions answered or to share more ideas the CYMPO team is at the YCCA Home Show all day today at the Findlay Toyota ... See More
Like - Reply - Commented on by Chris Bridges [?] - 1w

Paul Goodson HIRE SOME 'OTHER AGENCY' OUTSIDE YAVAPAI COUNTY TO DO THE PLANNING AND ACTUAL WORK. DON' T LEAVE IT TO EXISTING MORONS . A's
Like - Reply - Message - 4d
Eli Stevens I live in PA. Get your money back from FB.
Like - Reply - Message - 3d
Bonnie Plane We need this desperately
Like - Reply - Message • 1w
(b) 2

Bonnie Plane My sister does not have transportation and has many medical issues that requires many doctors visits with no way to get ther. I have always wondered why we do not have public transportation here

Like - Reply - Message • 1w

Liz Brown Why in the world can't these two cities (Prescott and Prescott Valley) have a public transportation system? Cities like Chino Valley have one. Just imagine the ability to get some of the traffic off the roads, so people can travel on the bus between these two places. It just boggles my mind why we can't agree on this opportunity!!!

Henry Schlickbernd The quad cities are growing and don't have any sort of basic public transportation for people who don't own a private vehicle or can't afford one at the moment.

Similar cities in population such as Flagstaff and Grand Junction, CO have bus transit and it works for their communities. It's time we get on board.

Like - Reply - Message • 1w
Brad Porterfield Government should not involve itself in public transportation other than maintaining roads and highways.

Like - Reply - Message • 1w
4 1 Reply
Jerry Bassett Public (bus) transportation is impractical for the area.
Everything is to spread out. It would require an massive coverage for it to be useful to all but a very few residents.

Like • Reply • Message • 1w
Vicki Starr Jones $\$ 5,500.00$ to put up 2 signs stating wildife crossing?? Only our government can really believe it could cost that much, no wonder our roads are in terrible conditions

Like - Reply - Message - 6d
Bonnie Plane Even chino valley has transportation options
Like • Reply • Message - 1 w
Jim Dotzler Our region needs a light rail loop, including many local stops from Downtown Prescott along Willow Creek Rd to the airport, then along Pioneer Parkway to Glassford Hill Rd to downtown Prescott Valley, then along Highway 69 back to downtown Prescott.
T... See More

Like - Reply - Message - 4d • Edited
Jim Dotzler Oh, and a fleet of very simple, public autonomous vehicles for train/bus riders to use to get from their homes to train stops.

Like - Reply - Message - 3d • Edited
( Henry Schlickbernd Love the idea and enthusiasm, it would help take traffic off $1-17$. The biggest question is how much that will all cost?

Like • Reply • Message • 3d

Jim Dotzler Henry, assuming these rail lines are built upon preexisting rights-of-way (highways, especially), once the track is laid and the vehicles purchased, the cost of maintenance and operation could easily be borne by all the cargo transport that will surely make use of these rail lines rather than trucks.

[^1]

Appendix G - Project Scoring Methodology

## 2030 Prioritization (Page 1)

|  | Estimated Cost (\$ millions) | Safety |  |  | Mobility |  |  | Total Risk <br> Factored Performance Area Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Candidate Solution \# |  | Existing Segment Need | PostSolution Segment Need | Factored Score | Existing Segment Need | PostSolution Segment Need | Factored Score |  |
| P1 | 1.357 | 1.76 | 1.683 | 0.074 | 0.08 | 0.075 | 0.000 | 0.074 |
| P2 | 0.012 | 3.55 | 3.490 | 0.063 | 2.88 | 2.842 | 0.037 | 0.100 |
| P2-1 | 0.012 | 2.19 | 2.129 | 0.058 | 2.50 | 2.467 | 0.037 | 0.094 |
| P2-2 |  | 1.37 | 1.360 | 0.005 | 0.38 | 0.375 | 0.000 | 0.005 |
| P4 | 3.165 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P5 | 0.993 | 2.43 | 2.187 | 0.238 | 1.15 | 1.153 | 0.000 | 0.238 |
| P6 | 9.614 | 0.72 | 0.689 | 0.032 | 0.42 | 0.329 | 0.093 | 0.125 |
| P7 | 0.232 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P9 | 1.13 | 1.52 | 0.975 | 0.541 | 2.04 | 2.036 | 0.000 | 0.541 |
| P10 |  | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P11 | 0.54 | 0.72 | 0.713 | 0.008 | 0.42 | 0.405 | 0.017 | 0.025 |
| P12 | 2.217 | 0.72 | 0.719 | 0.002 | 0.42 | 0.388 | 0.034 | 0.037 |
| P13 | 6.494 | 0.72 | 0.684 | 0.037 | 0.42 | 0.225 | 0.197 | 0.234 |
| P14 | 9.239 | 0.72 | 0.708 | 0.013 | 0.42 | 0.225 | 0.197 | 0.210 |
| P15 | 0.53 | 2.43 | 2.425 | 0.000 | 1.15 | 1.153 | 0.000 | 0.000 |
| P16 | 14.542 | 2.43 | 2.279 | 0.147 | 1.15 | 0.586 | 0.567 | 0.714 |
| P17 | 5.006 | 2.43 | 2.414 | 0.012 | 1.15 | 1.153 | 0.000 | 0.012 |
| P18 | 0.013 | 2.43 | 2.424 | 0.002 | 1.15 | 1.153 | 0.000 | 0.002 |
| P19 | 5.623 | 2.43 | 2.267 | 0.158 | 1.15 | 1.153 | 0.000 | 0.158 |
| P20 | 0.8 | 5.50 | 4.098 | 1.399 | 8.52 | 5.191 | 3.332 | 4.731 |
| P20-1 | 0.8 | 2.19 | 1.835 | 0.352 | 2.50 | 1.625 | 0.880 | 1.231 |
| P20-2 |  | 1.10 | 0.696 | 0.402 | 2.77 | 1.879 | 0.889 | 1.291 |
| P20-3 |  | 0.38 | 0.142 | 0.240 | 1.79 | 0.993 | 0.800 | 1.040 |
| P20-4 |  | 0.56 | 0.502 | 0.058 | 1.23 | 0.469 | 0.763 | 0.821 |
| P20-5 |  | 1.27 | 0.923 | 0.347 | 0.23 | 0.225 | 0.000 | 0.347 |
| P21 | 0.72 | 2.42 | 2.081 | 0.341 | 1.44 | 0.380 | 1.055 | 1.396 |
| P21-1 | 0.72 | 1.91 | 1.577 | 0.331 | 0.21 | 0.000 | 0.211 | 0.542 |
| P21-2 |  | 0.51 | 0.504 | 0.010 | 1.22 | 0.380 | 0.844 | 0.854 |
| P23 | 0.207 | 1.68 | 1.684 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P24 | 2.415 | 2.58 | 2.584 | 0.000 | 0.46 | 0.438 | 0.021 | 0.021 |
| P25 | 0.021 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P26 | 0.263 | 0.11 | 0.109 | 0.000 | 0.29 | 0.282 | 0.012 | 0.012 |
| P27 | 0.126 | 2.58 | 2.584 | 0.000 | 0.46 | 0.438 | 0.021 | 0.021 |
| P28 | 0.315 | 0.11 | 0.109 | 0.000 | 0.29 | 0.293 | 0.000 | 0.000 |
| P29 | 7.35 | 0.11 | 0.092 | 0.018 | 0.29 | 0.281 | 0.012 | 0.030 |
| P30 | 21.525 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P31 | 12.705 | 1.07 | 1.063 | 0.007 | 0.08 | 0.075 | 0.000 | 0.007 |
| P32 | 22.286 | 4.40 | 3.164 | 1.238 | 0.08 | 0.075 | 0.000 | 1.238 |
| P33 | 25.305 | 1.18 | 1.180 | 0.000 | 0.37 | 0.300 | 0.068 | 0.068 |
| P33-1 | 25.305 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P33-2 |  | 0.11 | 0.109 | 0.000 | 0.29 | 0.225 | 0.068 | 0.068 |
| P34 | 91.166 | 3.65 | 3.655 | 0.000 | 0.53 | 0.150 | 0.384 | 0.384 |
| P34-1 | 91.166 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P34-2 |  | 2.58 | 2.584 | 0.000 | 0.46 | 0.075 | 0.384 | 0.384 |
| P35 | 34.784 | 4.47 | 4.413 | 0.058 | 0.38 | 0.375 | 0.000 | 0.058 |
| P35-1 | 34.784 | 1.07 | 1.022 | 0.049 | 0.08 | 0.075 | 0.000 | 0.049 |
| P35-2 |  | 1.76 | 1.757 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P35-3 |  | 1.64 | 1.633 | 0.009 | 0.23 | 0.225 | 0.000 | 0.009 |
| P36 | 88.842 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P37 | 33.249 | 8.55 | 7.964 | 0.583 | 8.97 | 1.908 | 7.065 | 7.648 |
| P37-1 | 33.249 | 1.27 | 1.065 | 0.205 | 0.23 | 0.225 | 0.000 | 0.205 |
| P37-2 |  | 0.56 | 0.550 | 0.010 | 1.23 | 0.234 | 0.999 | 1.009 |


| Candidate Solution \# | Estimated Cost (\$ millions) | Safety |  |  | Mobility |  |  | Total Risk Factored Performance Area Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Existing Segment Need | PostSolution Segment Need | Factored Score | Existing Segment Need | PostSolution Segment Need | Factored Score |  |
| P37-3 |  | 0.38 | 0.305 | 0.077 | 1.79 | 0.387 | 1.407 | 1.484 |
| P37-4 |  | 1.10 | 0.964 | 0.134 | 2.77 | 0.387 | 2.381 | 2.515 |
| P37-5 |  | 2.19 | 2.060 | 0.127 | 2.50 | 0.225 | 2.279 | 2.406 |
| P37-6 |  | 1.68 | 1.656 | 0.029 | 0.08 | 0.075 | 0.000 | 0.029 |
| P37-7 |  | 1.37 | 1.366 | 0.000 | 0.38 | 0.375 | 0.000 | 0.000 |
| P39 | 30.804 | 3.31 | 3.179 | 0.126 | 0.88 | 0.353 | 0.528 | 0.654 |
| P39-1 | 30.804 | 2.58 | 2.458 | 0.126 | 0.46 | 0.075 | 0.384 | 0.510 |
| P39-2 |  | 0.72 | 0.721 | 0.000 | 0.42 | 0.278 | 0.144 | 0.144 |
| P40 | 6.191 | 2.58 | 2.482 | 0.102 | 0.46 | 0.086 | 0.372 | 0.475 |
| P41 | 19.873 | 0.33 | 0.113 | 0.214 | 0.28 | 0.225 | 0.057 | 0.271 |
| P42 | 6.349 | 1.47 | 1.419 | 0.056 | 0.67 | 0.600 | 0.068 | 0.124 |
| P42-1 | 6.349 | 1.37 | 1.331 | 0.035 | 0.38 | 0.375 | 0.000 | 0.035 |
| P42-2 |  | 0.11 | 0.089 | 0.021 | 0.29 | 0.225 | 0.068 | 0.089 |
| P43 | 21.8 | 0.11 | 0.108 | 0.002 | 0.29 | 0.293 | 0.000 | 0.002 |
| P44 | 23.988 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P45 | 30.957 | 1.47 | 1.475 | 0.000 | 0.67 | 0.600 | 0.068 | 0.068 |
| P45-1 | 30.957 | 1.37 | 1.366 | 0.000 | 0.38 | 0.375 | 0.000 | 0.000 |
| P45-2 |  | 0.11 | 0.109 | 0.000 | 0.29 | 0.225 | 0.068 | 0.068 |
| P46 | 15.316 | 0.00 | 0.000 | 0.000 | 0.30 | 0.225 | 0.074 | 0.074 |
| P47 | 19.284 | 2.39 | 2.392 | 0.000 | 0.15 | 0.150 | 0.000 | 0.000 |
| P47-1 | 19.284 | 0.27 | 0.273 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P47-2 |  | 2.12 | 2.119 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P48 | 31.687 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P49 | 11.65 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P50 | 26.662 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P51 | 8.955 | 2.01 | 1.076 | 0.932 | 0.23 | 0.225 | 0.000 | 0.932 |
| P51-1 | 8.955 | 2.01 | 1.076 | 0.932 | 0.00 | 0.000 | 0.000 | 0.932 |
| P51-2 |  | 0.00 | 0.000 | 0.000 | 0.23 | 0.225 | 0.000 | 0.000 |
| P52 | 27.716 | 0.94 | 0.942 | 0.000 | 3.03 | 1.064 | 1.962 | 1.962 |
| P52-1 | 27.716 | 0.38 | 0.382 | 0.000 | 1.79 | 0.831 | 0.963 | 0.963 |
| P52-2 |  | 0.56 | 0.560 | 0.000 | 1.23 | 0.234 | 0.999 | 0.999 |
| P53 | 9.07 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P54 | 27.493 | 1.68 | 1.684 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P55 | 103.507 | 5.73 | 5.731 | 0.000 | 2.03 | 1.274 | 0.760 | 0.760 |
| P55-1 | 103.507 | 2.58 | 2.584 | 0.000 | 0.46 | 0.172 | 0.287 | 0.287 |
| P55-2 |  | 0.72 | 0.721 | 0.000 | 0.42 | 0.225 | 0.197 | 0.197 |
| P55-3 |  | 2.43 | 2.425 | 0.000 | 1.15 | 0.877 | 0.276 | 0.276 |
| P56 | 77.98 | 3.77 | 3.769 | 0.000 | 0.43 | 0.375 | 0.057 | 0.057 |
| P56-1 | 77.98 | 1.76 | 1.757 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P56-2 |  | 1.68 | 1.684 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P56-3 |  | 0.33 | 0.327 | 0.000 | 0.28 | 0.225 | 0.057 | 0.057 |
| P57 | 102.895 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P58 | 5.644 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P60 | 0.45 | 1.47 | 1.240 | 0.235 | 0.67 | 0.600 | 0.068 | 0.304 |
| P60-1 | 0.45 | 1.37 | 1.166 | 0.200 | 0.38 | 0.375 | 0.000 | 0.200 |
| P60-2 |  | 0.11 | 0.074 | 0.036 | 0.29 | 0.225 | 0.068 | 0.104 |
| P61 | 8.62 | 1.52 | 1.396 | 0.121 | 2.04 | 0.075 | 1.961 | 2.082 |
| P62 | 4.366 | 2.01 | 1.748 | 0.263 | 0.36 | 0.352 | 0.005 | 0.269 |
| P62-1 | 4.366 | 1.68 | 1.609 | 0.075 | 0.08 | 0.075 | 0.000 | 0.075 |
| P62-2 |  | 0.33 | 0.139 | 0.188 | 0.28 | 0.277 | 0.005 | 0.193 |
| P63 | 23.177 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P59 | 0.138 |  |  |  |  |  |  | \#N/A |

## 2030 Prioritization (Page 2)

| Candidate Solution \# | Existing Regional Need | Satety |  |  | Mobility |  |  |  | Total Factored Benefit | $\begin{gathered} \text { VMT } \\ \text { Factor } \\ \hline \end{gathered}$ | $\begin{gathered} \text { NPV } \\ \text { Factor } \\ \hline \end{gathered}$ | Performance Effectiveness Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PostSolution Regional Need | Emphasis Factor | Factored Score | Existing Regional Need | PostSolution Regional Need | Emphasis Factor | Factored Score |  |  |  |  |
| P1 | 1.378 | 1.375 | 15.00 | 0.039 | 0.528 | 0.528 | 5.00 | 0.000 | 0.113 | 3.03 | 15.3 | 3.9 |
| P2 | 1.378 | 1.376 | 15.00 | 0.031 | 0.528 | 0.527 | 5.00 | 0.006 | 0.137 | 3.99 | 8.8 | 399.6 |
| P2-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.094 | 2.92 | 8.8 | 202.0 |
| P2-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.005 | 2.56 | 8.8 | \#DIV/0! |
| P4 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 15.3 | \#N/A |
| P5 | 1.378 | 1.371 | 15.00 | 0.099 | 0.528 | 0.528 | 5.00 | 0.000 | 0.337 | 2.60 | 15.3 | 13.5 |
| P6 | 1.378 | 1.376 | 15.00 | 0.031 | 0.528 | 0.522 | 5.00 | 0.030 | 0.187 | 4.11 | 15.3 | 1.2 |
| P7 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 15.3 | \#N/A |
| P9 | 1.378 | 1.358 | 15.00 | 0.296 | 0.528 | 0.528 | 5.00 | 0.000 | 0.837 | 3.08 | 15.3 | 35.1 |
| P10 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 4.65 | 15.3 | \#DIV/0! |
| P11 | 1.378 | 1.377 | 15.00 | 0.008 | 0.528 | 0.527 | 5.00 | 0.005 | 0.038 | 4.11 | 15.3 | 4.5 |
| P12 | 1.378 | 1.378 | 15.00 | 0.002 | 0.528 | 0.526 | 5.00 | 0.011 | 0.050 | 4.11 | 15.3 | 1.4 |
| P13 | 1.378 | 1.375 | 15.00 | 0.036 | 0.528 | 0.515 | 5.00 | 0.064 | 0.334 | 4.11 | 20.2 | 4.3 |
| P14 | 1.378 | 1.377 | 15.00 | 0.013 | 0.528 | 0.515 | 5.00 | 0.064 | 0.287 | 4.11 | 20.2 | 2.6 |
| P15 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 2.60 | 15.3 | 0.0 |
| P16 | 1.378 | 1.374 | 15.00 | 0.061 | 0.528 | 0.512 | 5.00 | 0.078 | 0.853 | 2.60 | 20.2 | 3.1 |
| P17 | 1.378 | 1.378 | 15.00 | 0.005 | 0.528 | 0.528 | 5.00 | 0.000 | 0.017 | 2.60 | 20.2 | 0.2 |
| P18 | 1.378 | 1.378 | 15.00 | 0.001 | 0.528 | 0.528 | 5.00 | 0.000 | 0.003 | 2.60 | 15.3 | 7.7 |
| P19 | 1.378 | 1.373 | 15.00 | 0.066 | 0.528 | 0.528 | 5.00 | 0.000 | 0.224 | 2.60 | 20.2 | 2.1 |
| P20 | 1.378 | 1.330 | 15.00 | 0.716 | 0.528 | 0.429 | 5.00 | 0.496 | 5.943 | 4.96 | 8.8 | 324.3 |
| P20-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.231 | 2.92 | 8.8 | 39.5 |
| P20-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.291 | 2.02 | 8.8 | \#DIV/0! |
| P20-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.040 | 3.49 | 8.8 | \#DIV/0! |
| P20-4 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.821 | 3.38 | 8.8 | \#DIV/0! |
| P20-5 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.347 | 3.36 | 8.8 | \#DIV/0! |
| P21 | 1.378 | 1.359 | 15.00 | 0.286 | 0.528 | 0.496 | 5.00 | 0.158 | 1.841 | 4.40 | 8.8 | 98.9 |
| P21-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.542 | 3.89 | 8.8 | 25.8 |
| P21-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.854 | 2.28 | 8.8 | \#DIV/0! |
| P23 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 4.63 | 20.2 | 0.0 |
| P24 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.526 | 5.00 | 0.009 | 0.030 | 4.51 | 20.2 | 1.1 |
| P25 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P26 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.001 | 0.013 | 1.85 | 20.2 | 1.8 |
| P27 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.526 | 5.00 | 0.009 | 0.030 | 4.51 | 20.2 | 21.8 |
| P28 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 1.85 | 15.3 | 0.0 |
| P29 | 1.378 | 1.378 | 15.00 | 0.005 | 0.528 | 0.528 | 5.00 | 0.001 | 0.036 | 1.85 | 20.2 | 0.2 |
| P30 | 1.378 | 1.374 | 15.00 | 0.055 | 0.528 | 0.528 | 5.00 | 0.000 | 0.055 | 4.65 | 20.2 | 0.2 |
| P31 | 1.378 | 1.374 | 15.00 | 0.061 | 0.528 | 0.528 | 5.00 | 0.000 | 0.069 | 4.65 | 20.2 | 0.5 |
| P32 | 1.378 | 1.371 | 15.00 | 0.097 | 0.528 | 0.528 | 5.00 | 0.000 | 1.335 | 0.63 | 20.2 | 0.8 |
| P33 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.527 | 5.00 | 0.006 | 0.074 | 4.78 | 20.2 | 0.3 |
| P33-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P33-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.068 | 1.85 | 20.2 | \#DIV/0! |
| P34 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.494 | 5.00 | 0.169 | 0.552 | 4.97 | 20.2 | 0.6 |
| P34-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P34-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.384 | 4.51 | 20.2 | \#DIV/0! |
| P35 | 1.378 | 1.364 | 15.00 | 0.207 | 0.528 | 0.528 | 5.00 | 0.000 | 0.265 | 4.88 | 20.2 | 0.8 |
| P35-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.049 | 4.65 | 20.2 | 0.1 |
| P35-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 3.03 | 20.2 | \#DIV/0! |
| P35-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.009 | 0.79 | 20.2 | \#DIV/0! |
| P36 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P37 | 1.378 | 1.356 | 15.00 | 0.334 | 0.528 | 0.328 | 5.00 | 1.000 | 8.983 | 5.00 | 20.2 | 27.3 |
| P37-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.205 | 3.36 | 20.2 | 0.4 |
| P37-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.009 | 3.38 | 20.2 | \#DIV/0! |
| P37-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.484 | 3.49 | 20.2 | \#DIV/0! |
| P37-4 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 2.515 | 2.02 | 20.2 | \#DIV/0! |
| P37-5 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 2.406 | 2.92 | 20.2 | \#DIV/0! |
| P37-6 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.029 | 4.63 | 20.2 | \#DIV/0! |
| P37-7 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 2.56 | 20.2 | \#DIV/0! |
| P39 | 1.378 | 1.367 | 15.00 | 0.166 | 0.528 | 0.485 | 5.00 | 0.216 | 1.036 | 4.91 | 20.2 | 3.3 |
| P39-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.510 | 4.51 | 20.2 | 1.5 |
| P39-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.144 | 4.11 | 20.2 | \#DIV/0! |
| P40 | 1.378 | 1.369 | 15.00 | 0.135 | 0.528 | 0.495 | 5.00 | 0.164 | 0.773 | 4.51 | 20.2 | 11.4 |
| P41 | 1.378 | 1.376 | 15.00 | 0.031 | 0.528 | 0.527 | 5.00 | 0.003 | 0.305 | 1.12 | 20.2 | 0.3 |
| P42 | 1.378 | 1.377 | 15.00 | 0.020 | 0.528 | 0.527 | 5.00 | 0.006 | 0.150 | 3.47 | 20.2 | 1.6 |
| P42-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.035 | 2.56 | 20.2 | 0.3 |
| P42-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.089 | 1.85 | 20.2 | \#DIV/0! |
| P43 | 1.378 | 1.378 | 15.00 | 0.001 | 0.528 | 0.528 | 5.00 | 0.000 | 0.002 | 1.85 | 20.2 | 0.0 |
| P44 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P45 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.527 | 5.00 | 0.006 | 0.074 | 3.47 | 20.2 | 0.2 |
| P45-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 2.56 | 20.2 | 0.0 |
| P45-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.068 | 1.85 | 20.2 | \#DIV/0! |


|  |  | Safety |  |  | Mobility |  |  |  | Total Factored Benefit | VMT <br> Factor | NPV <br> Factor | Performance Effectiveness Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Candidate Solution \# | Existing Regional Need | PostSolution Regional Need | Emphasis Factor | Factored Score | Existing Regional Need | PostSolution Regional Need | Emphasis Factor | Factored Score |  |  |  |  |
| P46 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.527 | 5.00 | 0.007 | 0.081 | 1.88 | 20.2 | 0.2 |
| P47 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 1.07 | 20.2 | 0.0 |
| P47-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 0.35 | 20.2 | 0.0 |
| P47-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 0.77 | 20.2 | \#DIV/0! |
| P48 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P49 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P50 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P51 | 1.378 | 1.375 | 15.00 | 0.041 | 0.528 | 0.528 | 5.00 | 0.000 | 0.974 | 0.45 | 20.2 | 1.0 |
| P51-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.932 | 0.37 | 20.2 | 0.8 |
| P51-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 0.09 | 20.2 | \#DIV/0! |
| P52 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.461 | 5.00 | 0.333 | 2.294 | 4.51 | 20.2 | 7.5 |
| P52-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.963 | 3.49 | 20.2 | 2.5 |
| P52-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.999 | 3.38 | 20.2 | \#DIV/0! |
| P53 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P54 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 4.63 | 20.2 | 0.0 |
| P55 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.482 | 5.00 | 0.228 | 0.988 | 4.96 | 20.2 | 1.0 |
| P55-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.287 | 4.51 | 20.2 | 0.3 |
| P55-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.197 | 4.11 | 20.2 | \#DIV/0! |
| P55-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.276 | 2.60 | 20.2 | \#DIV/0! |
| P56 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.527 | 5.00 | 0.003 | 0.060 | 4.89 | 20.2 | 0.1 |
| P56-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 3.03 | 20.2 | 0.0 |
| P56-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 4.63 | 20.2 | \#DIV/0! |
| P56-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.057 | 1.12 | 20.2 | \#DIV/0! |
| P57 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P58 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P60 | 1.378 | 1.372 | 15.00 | 0.091 | 0.528 | 0.527 | 5.00 | 0.006 | 0.401 | 3.47 | 8.8 | 27.1 |
| P60-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.200 | 2.56 | 8.8 | 10.0 |
| P60-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.104 | 1.85 | 8.8 | \#DIV/0! |
| P61 | 1.378 | 1.373 | 15.00 | 0.066 | 0.528 | 0.457 | 5.00 | 0.357 | 2.504 | 4.51 | 20.2 | 26.5 |
| P62 | 1.378 | 1.369 | 15.00 | 0.139 | 0.528 | 0.528 | 5.00 | 0.000 | 0.408 | 4.72 | 20.2 | 8.9 |
| P62-1 |  |  |  | 0.000 |  |  |  | 0.000 | 0.075 | 4.63 | 20.2 | 1.6 |
| P62-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.193 | 1.12 | 20.2 | \#DIV/0! |
| P63 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P59 | 1.378 | 1.378 | 15.00 | 0.000 | 0.528 | 0.528 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |

## 2030 Prioritization (Page 3)

| Candidate Solution \# | Pavement |  | Bridge |  | Safety |  | Mobility |  | Freight |  | $\begin{aligned} & \text { Total } \\ & \text { Factored } \\ & \text { Score } \end{aligned}$ | Weighted <br> Risk <br> Factor | Segment Need | Prioritization Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Score | \% | Score | \% | Score | \% | Score | \% | Score | \% |  |  |  |  |
| P1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.113 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.113 | 1.780 | 0.46 | 3 |
| P2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.094 | 68.8\% | 0.043 | 31.2\% | 0.000 | 0.0\% | 0.137 | 1.649 | 1.05 | 690 |
| P2-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.058 | 61.2\% | 0.037 | 38.8\% | 0.000 | 0.0\% | 0.094 | 1.617 | 1.56 |  |
| P2-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.005 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.005 | 1.780 | 0.58 |  |
| P4 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P5 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.337 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.337 | 1.780 | 0.89 | 21 |
| P6 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.064 | 34.0\% | 0.124 | 66.0\% | 0.000 | 0.0\% | 0.187 | 1.503 | 0.29 | 1 |
| P7 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P9 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.837 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.837 | 1.780 | 0.89 | 55 |
| P10 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P11 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.016 | 42.4\% | 0.022 | 57.6\% | 0.000 | 0.0\% | 0.038 | 1.538 | 0.29 | 2 |
| P12 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.005 | 9.9\% | 0.045 | 90.1\% | 0.000 | 0.0\% | 0.050 | 1.401 | 0.29 | 1 |
| P13 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.073 | 21.8\% | 0.261 | 78.2\% | 0.000 | 0.0\% | 0.334 | 1.452 | 0.29 | 2 |
| P14 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.026 | 9.0\% | 0.261 | 91.0\% | 0.000 | 0.0\% | 0.287 | 1.398 | 0.29 | 1 |
| P15 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.89 | 0 |
| P16 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.208 | 24.3\% | 0.646 | 75.7\% | 0.000 | 0.0\% | 0.853 | 1.462 | 0.89 | 4 |
| P17 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.017 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.017 | 1.780 | 0.89 | 0 |
| P18 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.003 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.003 | 1.780 | 0.89 | 12 |
| P19 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.224 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.224 | 1.780 | 0.89 | 3 |
| P20 | 0.000 | 0.0\% | 0.000 | 0.0\% | 2.115 | 35.6\% | 3.827 | 64.4\% | 0.000 | 0.0\% | 5.943 | 1.510 | 0.83 | 408 |
| P20-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.352 | 28.6\% | 0.880 | 71.4\% | 0.000 | 0.0\% | 1.231 | 1.480 | 1.56 |  |
| P20-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.402 | 31.2\% | 0.889 | 68.8\% | 0.000 | 0.0\% | 1.291 | 1.491 | 1.48 |  |
| P20-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.240 | 23.0\% | 0.800 | 77.0\% | 0.000 | 0.0\% | 1.040 | 1.457 | 0.54 |  |
| P20-4 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.058 | 7.1\% | 0.763 | 92.9\% | 0.000 | 0.0\% | 0.821 | 1.390 | 0.60 |  |
| P20-5 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.347 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.347 | 1.780 | 0.37 |  |
| P21 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.628 | 34.1\% | 1.213 | 65.9\% | 0.000 | 0.0\% | 1.841 | 1.503 | 0.50 | 74 |
| P21-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.331 | 61.0\% | 0.211 | 39.0\% | 0.000 | 0.0\% | 0.542 | 1.616 | 0.53 |  |
| P21-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.010 | 1.2\% | 0.844 | 98.8\% | 0.000 | 0.0\% | 0.854 | 1.365 | 0.43 |  |
| P23 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.59 | 0 |
| P24 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.030 | 100.0\% | 0.000 | 0.0\% | 0.030 | 1.360 | 0.76 | 1 |
| P25 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P26 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.013 | 100.0\% | 0.000 | 0.0\% | 0.013 | 1.360 | 0.10 | 0 |
| P27 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.030 | 100.0\% | 0.000 | 0.0\% | 0.030 | 1.360 | 0.76 | 23 |
| P28 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.10 | 0 |
| P29 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.022 | 62.7\% | 0.013 | 37.3\% | 0.000 | 0.0\% | 0.036 | 1.623 | 0.10 | 0 |
| P30 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.055 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.055 | 1.780 | 0.29 | 0 |
| P31 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.069 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.069 | 1.780 | 0.29 | 0 |


| Candidate Solution \# | Pavement |  | Bridge |  | Safety |  | Mobility |  | Freight |  | Total <br> Factored <br> Score | Weighted Risk Factor | Segment Need | Prioritization Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Score | \% | Score | \% | Score | \% | Score | \% | Score | \% |  |  |  |  |
| P32 | 0.000 | 0.0\% | 0.000 | 0.0\% | 1.335 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 1.335 | 1.780 | 1.12 | 2 |
| P33 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.074 | 100.0\% | 0.000 | 0.0\% | 0.074 | 1.360 | 0.26 | 0 |
| P33-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P33-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.068 | 100.0\% | 0.000 | 0.0\% | 0.068 | 1.360 | 0.10 | 0 |
| P34 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.552 | 100.0\% | 0.000 | 0.0\% | 0.552 | 1.360 | 0.54 | 0 |
| P34-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 |  |
| P34-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.384 | 100.0\% | 0.000 | 0.0\% | 0.384 | 1.360 | 0.76 |  |
| P35 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.265 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.265 | 1.780 | 0.40 | 1 |
| P35-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.049 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.049 | 1.780 | 0.29 |  |
| P35-2 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.46 |  |
| P35-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.009 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.009 | 1.780 | 0.62 |  |
| P36 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P37 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.917 | 10.2\% | 8.066 | 89.8\% | 0.000 | 0.0\% | 8.983 | 1.403 | 0.70 | 27 |
| P37-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.205 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.205 | 1.780 | 0.37 |  |
| P37-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.010 | 1.0\% | 0.999 | 99.0\% | 0.000 | 0.0\% | 1.009 | 1.364 | 0.60 |  |
| P37-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.077 | 5.2\% | 1.407 | 94.8\% | 0.000 | 0.0\% | 1.484 | 1.382 | 0.54 |  |
| P37-4 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.134 | 5.3\% | 2.381 | 94.7\% | 0.000 | 0.0\% | 2.515 | 1.382 | 1.48 |  |
| P37-5 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.127 | 5.3\% | 2.279 | 94.7\% | 0.000 | 0.0\% | 2.406 | 1.382 | 1.56 |  |
| P37-6 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.029 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.029 | 1.780 | 0.59 |  |
| P37-7 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.58 |  |
| P39 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.292 | 28.2\% | 0.744 | 71.8\% | 0.000 | 0.0\% | 1.036 | 1.478 | 0.53 | 3 |
| P39-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.126 | 24.7\% | 0.384 | 75.3\% | 0.000 | 0.0\% | 0.510 | 1.464 | 0.76 |  |
| P39-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.144 | 100.0\% | 0.000 | 0.0\% | 0.144 | 1.360 | 0.29 |  |
| P40 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.237 | 30.7\% | 0.536 | 69.3\% | 0.000 | 0.0\% | 0.773 | 1.489 | 0.76 | 13 |
| P41 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.245 | 80.4\% | 0.060 | 19.6\% | 0.000 | 0.0\% | 0.305 | 1.698 | 0.15 | 0 |
| P42 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.075 | 50.3\% | 0.074 | 49.7\% | 0.000 | 0.0\% | 0.150 | 1.571 | 0.40 | 1 |
| P42-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.035 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.035 | 1.780 | 0.58 |  |
| P42-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.021 | 23.1\% | 0.068 | 76.9\% | 0.000 | 0.0\% | 0.089 | 1.457 | 0.10 |  |
| P43 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.002 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.002 | 1.780 | 0.10 | 0 |
| P44 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P45 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.074 | 100.0\% | 0.000 | 0.0\% | 0.074 | 1.360 | 0.40 | 0 |
| P45-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.58 |  |
| P45-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.068 | 100.0\% | 0.000 | 0.0\% | 0.068 | 1.360 | 0.10 |  |
| P46 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.081 | 100.0\% | 0.000 | 0.0\% | 0.081 | 1.360 | 0.07 | 0 |
| P47 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.43 | 0 |
| P47-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.12 |  |
| P47-2 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.55 |  |
| P48 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P49 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P50 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P51 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.974 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.974 | 1.780 | 0.53 | 1 |
| P51-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.932 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.932 | 1.780 | 0.78 |  |
| P51-2 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.08 |  |
| P52 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 2.294 | 100.0\% | 0.000 | 0.0\% | 2.294 | 1.360 | 0.57 | 6 |
| P52-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.963 | 100.0\% | 0.000 | 0.0\% | 0.963 | 1.360 | 0.54 |  |
| P52-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.999 | 100.0\% | 0.000 | 0.0\% | 0.999 | 1.360 | 0.60 |  |
| P53 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P54 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.59 | 0 |
| P55 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.988 | 100.0\% | 0.000 | 0.0\% | 0.988 | 1.360 | 0.66 | 1 |
| P55-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.287 | 100.0\% | 0.000 | 0.0\% | 0.287 | 1.360 | 0.76 |  |
| P55-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.197 | 100.0\% | 0.000 | 0.0\% | 0.197 | 1.360 | 0.29 |  |
| P55-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.276 | 100.0\% | 0.000 | 0.0\% | 0.276 | 1.360 | 0.89 |  |
| P56 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.060 | 100.0\% | 0.000 | 0.0\% | 0.060 | 1.360 | 0.48 | 0 |
| P56-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.46 |  |
| P56-2 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.59 |  |
| P56-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.057 | 100.0\% | 0.000 | 0.0\% | 0.057 | 1.360 | 0.15 |  |
| P57 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P58 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P60 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.326 | 81.4\% | 0.074 | 18.6\% | 0.000 | 0.0\% | 0.401 | 1.702 | 0.40 | 18 |
| P60-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.200 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.200 | 1.780 | 0.58 |  |
| P60-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.036 | 34.2\% | 0.068 | 65.8\% | 0.000 | 0.0\% | 0.104 | 1.504 | 0.10 |  |
| P61 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.186 | 7.4\% | 2.318 | 92.6\% | 0.000 | 0.0\% | 2.504 | 1.391 | 0.89 | 33 |
| P62 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.402 | 98.6\% | 0.006 | 1.4\% | 0.000 | 0.0\% | 0.408 | 1.774 | 0.49 | 8 |
| P62-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.075 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.075 | 1.780 | 0.59 |  |
| P62-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.188 | 97.2\% | 0.005 | 2.8\% | 0.000 | 0.0\% | 0.193 | 1.768 | 0.15 |  |
| P63 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P59 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |

## 2045 Prioritization (Page 1)

| Candidate Solution \# | Estimated Cost (\$ millions) | Safety |  |  | Mobility |  |  | Total Risk Factored Performance Area Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Existing Segment Need | PostSolution Segment Need | Factored Score | Existing Segment Need | PostSolution Segment Need | Factored Score |  |
| P1 | 1.357 | 1.76 | 1.683 | 0.074 | 0.08 | 0.075 | 0.000 | 0.074 |
| P2 | 0.012 | 3.55 | 3.490 | 0.063 | 3.21 | 3.165 | 0.045 | 0.108 |
| P2-1 | 0.012 | 2.19 | 2.129 | 0.058 | 2.77 | 2.728 | 0.038 | 0.095 |
| P2-2 |  | 1.37 | 1.360 | 0.005 | 0.44 | 0.437 | 0.007 | 0.012 |
| P4 | 3.165 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P5 | 0.993 | 2.43 | 2.187 | 0.238 | 2.04 | 2.037 | 0.000 | 0.238 |
| P6 | 9.614 | 0.72 | 0.689 | 0.032 | 0.98 | 0.849 | 0.130 | 0.162 |
| P7 | 0.232 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P9 | 1.13 | 1.52 | 0.975 | 0.541 | 2.61 | 2.612 | 0.000 | 0.541 |
| P10 |  | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P11 | 0.54 | 0.72 | 0.713 | 0.008 | 0.98 | 0.961 | 0.018 | 0.026 |
| P12 | 2.217 | 0.72 | 0.719 | 0.002 | 0.98 | 0.942 | 0.037 | 0.039 |
| P13 | 6.494 | 0.72 | 0.684 | 0.037 | 0.98 | 0.323 | 0.655 | 0.692 |
| P14 | 9.239 | 0.72 | 0.708 | 0.013 | 0.98 | 0.238 | 0.741 | 0.754 |
| P15 | 0.53 | 2.43 | 2.425 | 0.000 | 2.04 | 2.037 | 0.000 | 0.000 |
| P16 | 14.542 | 2.43 | 2.279 | 0.147 | 2.04 | 1.395 | 0.643 | 0.790 |
| P17 | 5.006 | 2.43 | 2.414 | 0.012 | 2.04 | 2.037 | 0.000 | 0.012 |
| P18 | 0.013 | 2.43 | 2.424 | 0.002 | 2.04 | 2.037 | 0.000 | 0.002 |
| P19 | 5.623 | 2.43 | 2.267 | 0.158 | 2.04 | 2.037 | 0.000 | 0.158 |
| P20 | 0.8 | 5.50 | 4.098 | 1.399 | 9.74 | 6.296 | 3.442 | 4.841 |
| P20-1 | 0.8 | 2.19 | 1.835 | 0.352 | 2.77 | 1.863 | 0.903 | 1.255 |
| P20-2 |  | 1.10 | 0.696 | 0.402 | 3.12 | 2.197 | 0.921 | 1.323 |
| P20-3 |  | 0.38 | 0.142 | 0.240 | 2.11 | 1.283 | 0.829 | 1.069 |
| P20-4 |  | 0.56 | 0.502 | 0.058 | 1.52 | 0.729 | 0.789 | 0.847 |
| P20-5 |  | 1.27 | 0.923 | 0.347 | 0.23 | 0.225 | 0.000 | 0.347 |
| P21 | 0.72 | 2.42 | 2.081 | 0.341 | 3.16 | 1.401 | 1.760 | 2.102 |
| P21-1 | 0.72 | 1.91 | 1.577 | 0.331 | 1.02 | 0.210 | 0.806 | 1.137 |
| P21-2 |  | 0.51 | 0.504 | 0.010 | 2.14 | 1.190 | 0.954 | 0.965 |
| P23 | 0.207 | 1.68 | 1.684 | 0.000 | 0.28 | 0.279 | 0.002 | 0.002 |
| P24 | 2.415 | 2.58 | 2.584 | 0.000 | 1.17 | 1.142 | 0.023 | 0.023 |
| P25 | 0.021 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P26 | 0.263 | 0.11 | 0.109 | 0.000 | 0.87 | 0.809 | 0.059 | 0.059 |
| P27 | 0.126 | 2.58 | 2.584 | 0.000 | 1.17 | 1.142 | 0.023 | 0.023 |
| P28 | 0.315 | 0.11 | 0.109 | 0.000 | 0.87 | 0.867 | 0.000 | 0.000 |
| P29 | 7.35 | 0.11 | 0.092 | 0.018 | 0.87 | 0.806 | 0.061 | 0.079 |
| P30 | 21.525 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P31 | 12.705 | 1.07 | 1.063 | 0.007 | 0.08 | 0.075 | 0.000 | 0.007 |
| P32 | 22.286 | 4.40 | 3.164 | 1.238 | 0.08 | 0.075 | 0.000 | 1.238 |
| P33 | 25.305 | 1.18 | 1.180 | 0.000 | 0.94 | 0.457 | 0.485 | 0.485 |
| P33-1 | 25.305 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P33-2 |  | 0.11 | 0.109 | 0.000 | 0.87 | 0.382 | 0.485 | 0.485 |
| P34 | 91.166 | 3.65 | 3.655 | 0.000 | 1.24 | 0.322 | 0.918 | 0.918 |
| P34-1 | 91.166 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P34-2 |  | 2.58 | 2.584 | 0.000 | 1.17 | 0.247 | 0.918 | 0.918 |
| P35 | 34.784 | 4.47 | 4.413 | 0.058 | 0.38 | 0.375 | 0.000 | 0.058 |
| P35-1 | 34.784 | 1.07 | 1.022 | 0.049 | 0.08 | 0.075 | 0.000 | 0.049 |
| P35-2 |  | 1.76 | 1.757 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P35-3 |  | 1.64 | 1.633 | 0.009 | 0.23 | 0.225 | 0.000 | 0.009 |
| P36 | 88.842 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P37 | 33.249 | 8.55 | 7.964 | 0.583 | 10.46 | 2.164 | 8.298 | 8.881 |
| P37-1 | 33.249 | 1.27 | 1.065 | 0.205 | 0.23 | 0.225 | 0.000 | 0.205 |
| P37-2 |  | 0.56 | 0.550 | 0.010 | 1.52 | 0.234 | 1.284 | 1.294 |


| Candidate Solution \# | Estimated Cost (\$ millions) | Safety |  |  | Mobility |  |  | Total Risk Factored Performance Area Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Existing Segment Need | PostSolution Segment Need | Factored Score | Existing Segment Need | PostSolution Segment Need | Factored Score |  |
| P37-3 |  | 0.38 | 0.305 | 0.077 | 2.11 | 0.429 | 1.683 | 1.760 |
| P37-4 |  | 1.10 | 0.964 | 0.134 | 3.12 | 0.533 | 2.585 | 2.719 |
| P37-5 |  | 2.19 | 2.060 | 0.127 | 2.77 | 0.225 | 2.541 | 2.668 |
| P37-6 |  | 1.68 | 1.656 | 0.029 | 0.28 | 0.075 | 0.205 | 0.234 |
| P37-7 |  | 1.37 | 1.366 | 0.000 | 0.44 | 0.444 | 0.000 | 0.000 |
| P39 | 30.804 | 3.31 | 3.179 | 0.126 | 2.14 | 0.656 | 1.488 | 1.614 |
| P39-1 | 30.804 | 2.58 | 2.458 | 0.126 | 1.17 | 0.075 | 1.090 | 1.216 |
| P39-2 |  | 0.72 | 0.721 | 0.000 | 0.98 | 0.581 | 0.398 | 0.398 |
| P40 | 6.191 | 2.58 | 2.482 | 0.102 | 1.17 | 0.367 | 0.798 | 0.901 |
| P41 | 19.873 | 0.33 | 0.113 | 0.214 | 0.87 | 0.225 | 0.646 | 0.860 |
| P42 | 6.349 | 1.47 | 1.419 | 0.056 | 1.31 | 0.600 | 0.711 | 0.766 |
| P42-1 | 6.349 | 1.37 | 1.331 | 0.035 | 0.44 | 0.375 | 0.069 | 0.104 |
| P42-2 |  | 0.11 | 0.089 | 0.021 | 0.87 | 0.225 | 0.642 | 0.663 |
| P43 | 21.8 | 0.11 | 0.108 | 0.002 | 0.87 | 0.867 | 0.000 | 0.002 |
| P44 | 23.988 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P45 | 30.957 | 1.47 | 1.475 | 0.000 | 1.31 | 0.862 | 0.449 | 0.449 |
| P45-1 | 30.957 | 1.37 | 1.366 | 0.000 | 0.44 | 0.375 | 0.069 | 0.069 |
| P45-2 |  | 0.11 | 0.109 | 0.000 | 0.87 | 0.487 | 0.381 | 0.381 |
| P46 | 15.316 | 0.00 | 0.000 | 0.000 | 0.81 | 0.225 | 0.583 | 0.583 |
| P47 | 19.284 | 2.39 | 2.392 | 0.000 | 0.15 | 0.150 | 0.000 | 0.000 |
| P47-1 | 19.284 | 0.27 | 0.273 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P47-2 |  | 2.12 | 2.119 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P48 | 31.687 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P49 | 11.65 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P50 | 26.662 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P51 | 8.955 | 2.01 | 1.076 | 0.932 | 0.23 | 0.225 | 0.000 | 0.932 |
| P51-1 | 8.955 | 2.01 | 1.076 | 0.932 | 0.00 | 0.000 | 0.000 | 0.932 |
| P51-2 |  | 0.00 | 0.000 | 0.000 | 0.23 | 0.225 | 0.000 | 0.000 |
| P52 | 27.716 | 0.94 | 0.942 | 0.000 | 3.63 | 1.437 | 2.193 | 2.193 |
| P52-1 | 27.716 | 0.38 | 0.382 | 0.000 | 2.11 | 1.120 | 0.992 | 0.992 |
| P52-2 |  | 0.56 | 0.560 | 0.000 | 1.52 | 0.317 | 1.201 | 1.201 |
| P53 | 9.07 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P54 | 27.493 | 1.68 | 1.684 | 0.000 | 0.28 | 0.192 | 0.088 | 0.088 |
| P55 | 103.507 | 5.73 | 5.731 | 0.000 | 4.18 | 2.835 | 1.346 | 1.346 |
| P55-1 | 103.507 | 2.58 | 2.584 | 0.000 | 1.17 | 0.814 | 0.351 | 0.351 |
| P55-2 |  | 0.72 | 0.721 | 0.000 | 0.98 | 0.296 | 0.682 | 0.682 |
| P55-3 |  | 2.43 | 2.425 | 0.000 | 2.04 | 1.725 | 0.312 | 0.312 |
| P56 | 77.98 | 3.77 | 3.769 | 0.000 | 1.23 | 0.475 | 0.751 | 0.751 |
| P56-1 | 77.98 | 1.76 | 1.757 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P56-2 |  | 1.68 | 1.684 | 0.000 | 0.28 | 0.175 | 0.105 | 0.105 |
| P56-3 |  | 0.33 | 0.327 | 0.000 | 0.87 | 0.225 | 0.646 | 0.646 |
| P57 | 102.895 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P58 | 5.644 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |
| P60 | 0.45 | 1.47 | 1.240 | 0.235 | 1.31 | 0.866 | 0.445 | 0.680 |
| P60-1 | 0.45 | 1.37 | 1.166 | 0.200 | 0.44 | 0.375 | 0.069 | 0.268 |
| P60-2 |  | 0.11 | 0.074 | 0.036 | 0.87 | 0.491 | 0.376 | 0.412 |
| P61 | 8.62 | 1.52 | 1.396 | 0.121 | 2.61 | 0.075 | 2.537 | 2.658 |
| P62 | 4.366 | 2.01 | 1.748 | 0.263 | 1.15 | 1.120 | 0.031 | 0.295 |
| P62-1 | 4.366 | 1.68 | 1.609 | 0.075 | 0.28 | 0.278 | 0.003 | 0.078 |
| P62-2 |  | 0.33 | 0.139 | 0.188 | 0.87 | 0.843 | 0.028 | 0.217 |
| P63 | 23.177 | 1.07 | 1.071 | 0.000 | 0.08 | 0.075 | 0.000 | 0.000 |
| P59 | 0.138 | \#N/A |  | \#N/A | \#N/A |  | \#N/A | \#N/A |

## 2045 Prioritization (Page 2)

| Candidate Solution \# | Existing Regional Need | Satety |  |  | Mobility |  |  |  | Total <br> Factored Benefit | $\begin{aligned} & \text { VMT } \\ & \text { Factor } \end{aligned}$ | $\begin{gathered} \text { NPV } \\ \text { Factor } \end{gathered}$ | Performance Effectiveness Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PostSolution Need | Emphasis Factor | Factored Score | Existing Regional Need | PostSolution Regional Need | Emphasis Factor | Factored Score |  |  |  |  |
| P1 | 1.378 | 1.375 | 15.00 | 0.039 | 0.832 | 0.832 | 5.00 | 0.000 | 0.113 | 3.03 | 15.3 | 3.9 |
| P2 | 1.378 | 1.376 | 15.00 | 0.031 | 0.832 | 0.831 | 5.00 | 0.007 | 0.146 | 3.99 | 8.8 | 426.2 |
| P2-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.095 | 2.92 | 8.8 | 204.1 |
| P2-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.012 | 2.56 | 8.8 | \#DIV/0! |
| P4 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 15.3 | \#N/A |
| P5 | 1.378 | 1.371 | 15.00 | 0.099 | 0.832 | 0.832 | 5.00 | 0.000 | 0.337 | 2.60 | 15.3 | 13.5 |
| P6 | 1.378 | 1.376 | 15.00 | 0.031 | 0.832 | 0.824 | 5.00 | 0.042 | 0.236 | 4.11 | 15.3 | 1.5 |
| P7 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 15.3 | \#N/A |
| P9 | 1.378 | 1.358 | 15.00 | 0.296 | 0.832 | 0.832 | 5.00 | 0.000 | 0.837 | 3.08 | 15.3 | 35.1 |
| P10 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | 0.000 | 4.65 | 15.3 | \#DIV/0! |
| P11 | 1.378 | 1.377 | 15.00 | 0.008 | 0.832 | 0.831 | 5.00 | 0.006 | 0.040 | 4.11 | 15.3 | 4.6 |
| P12 | 1.378 | 1.378 | 15.00 | 0.002 | 0.832 | 0.830 | 5.00 | 0.012 | 0.053 | 4.11 | 15.3 | 1.5 |
| P13 | 1.378 | 1.375 | 15.00 | 0.036 | 0.832 | 0.789 | 5.00 | 0.214 | 0.942 | 4.11 | 20.2 | 12.0 |
| P14 | 1.378 | 1.377 | 15.00 | 0.013 | 0.832 | 0.784 | 5.00 | 0.242 | 1.009 | 4.11 | 20.2 | 9.1 |
| P15 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | 0.000 | 2.60 | 15.3 | 0.0 |
| P16 | 1.378 | 1.374 | 15.00 | 0.061 | 0.832 | 0.814 | 5.00 | 0.089 | 0.939 | 2.60 | 20.2 | 3.4 |
| P17 | 1.378 | 1.378 | 15.00 | 0.005 | 0.832 | 0.832 | 5.00 | 0.000 | 0.017 | 2.60 | 20.2 | 0.2 |
| P18 | 1.378 | 1.378 | 15.00 | 0.001 | 0.832 | 0.832 | 5.00 | 0.000 | 0.003 | 2.60 | 15.3 | 7.7 |
| P19 | 1.378 | 1.373 | 15.00 | 0.066 | 0.832 | 0.832 | 5.00 | 0.000 | 0.224 | 2.60 | 20.2 | 2.1 |
| P20 | 1.378 | 1.330 | 15.00 | 0.716 | 0.832 | 0.730 | 5.00 | 0.512 | 6.070 | 4.96 | 8.8 | 331.2 |
| P20-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.255 | 2.92 | 8.8 | 40.3 |
| P20-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.323 | 2.02 | 8.8 | \#DIV/0! |
| P20-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.069 | 3.49 | 8.8 | \#DIV/0! |
| P20-4 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.847 | 3.38 | 8.8 | \#DIV/0! |
| P20-5 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.347 | 3.36 | 8.8 | \#DIV/0! |
| P21 | 1.378 | 1.359 | 15.00 | 0.286 | 0.832 | 0.764 | 5.00 | 0.340 | 2.728 | 4.40 | 8.8 | 146.6 |
| P21-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.137 | 3.89 | 8.8 | 54.1 |
| P21-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.965 | 2.28 | 8.8 | \#DIV/0! |
| P23 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.001 | 0.002 | 4.63 | 20.2 | 1.0 |
| P24 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.830 | 5.00 | 0.010 | 0.033 | 4.51 | 20.2 | 1.2 |
| P25 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P26 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.831 | 5.00 | 0.005 | 0.064 | 1.85 | 20.2 | 9.1 |
| P27 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.830 | 5.00 | 0.010 | 0.033 | 4.51 | 20.2 | 23.8 |
| P28 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | 0.000 | 1.85 | 15.3 | 0.0 |
| P29 | 1.378 | 1.378 | 15.00 | 0.005 | 0.832 | 0.831 | 5.00 | 0.005 | 0.089 | 1.85 | 20.2 | 0.5 |
| P30 | 1.378 | 1.374 | 15.00 | 0.055 | 0.832 | 0.832 | 5.00 | 0.000 | 0.055 | 4.65 | 20.2 | 0.2 |
| P31 | 1.378 | 1.374 | 15.00 | 0.061 | 0.832 | 0.832 | 5.00 | 0.000 | 0.069 | 4.65 | 20.2 | 0.5 |
| P32 | 1.378 | 1.371 | 15.00 | 0.097 | 0.832 | 0.832 | 5.00 | 0.000 | 1.335 | 0.63 | 20.2 | 0.8 |
| P33 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.824 | 5.00 | 0.042 | 0.528 | 4.78 | 20.2 | 1.6 |
| P33-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P33-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.485 | 1.85 | 20.2 | \#DIV/0! |
| P34 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.752 | 5.00 | 0.403 | 1.320 | 4.97 | 20.2 | 1.5 |
| P34-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P34-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.918 | 4.51 | 20.2 | \#DIV/0! |
| P35 | 1.378 | 1.364 | 15.00 | 0.207 | 0.832 | 0.832 | 5.00 | 0.000 | 0.265 | 4.88 | 20.2 | 0.8 |
| P35-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.049 | 4.65 | 20.2 | 0.1 |
| P35-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 3.03 | 20.2 | \#DIV/0! |
| P35-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.009 | 0.79 | 20.2 | \#DIV/0! |
| P36 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P37 | 1.378 | 1.356 | 15.00 | 0.334 | 0.832 | 0.580 | 5.00 | 1.261 | 10.476 | 5.00 | 20.2 | 31.8 |
| P37-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.205 | 3.36 | 20.2 | 0.4 |
| P37-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.294 | 3.38 | 20.2 | \#DIV/0! |
| P37-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.760 | 3.49 | 20.2 | \#DIV/0! |
| P37-4 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 2.719 | 2.02 | 20.2 | \#DIV/0! |
| P37-5 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 2.668 | 2.92 | 20.2 | \#DIV/0! |
| P37-6 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.234 | 4.63 | 20.2 | \#DIV/0! |
| P37-7 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 2.56 | 20.2 | \#DIV/0! |
| P39 | 1.378 | 1.367 | 15.00 | 0.166 | 0.832 | 0.710 | 5.00 | 0.609 | 2.389 | 4.91 | 20.2 | 7.7 |
| P39-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.216 | 4.51 | 20.2 | 3.6 |
| P39-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.398 | 4.11 | 20.2 | \#DIV/0! |
| P40 | 1.378 | 1.369 | 15.00 | 0.135 | 0.832 | 0.762 | 5.00 | 0.350 | 1.386 | 4.51 | 20.2 | 20.4 |
| P41 | 1.378 | 1.376 | 15.00 | 0.031 | 0.832 | 0.826 | 5.00 | 0.031 | 0.922 | 1.12 | 20.2 | 1.1 |
| P42 | 1.378 | 1.377 | 15.00 | 0.020 | 0.832 | 0.819 | 5.00 | 0.065 | 0.852 | 3.47 | 20.2 | 9.4 |
| P42-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.104 | 2.56 | 20.2 | 0.8 |
| P42-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.663 | 1.85 | 20.2 | \#DIV/0! |
| P43 | 1.378 | 1.378 | 15.00 | 0.001 | 0.832 | 0.832 | 5.00 | 0.000 | 0.002 | 1.85 | 20.2 | 0.0 |
| P44 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | 0.0 |
| P45 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.823 | 5.00 | 0.045 | 0.494 | 3.47 | 20.2 | 1.1 |
| P45-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.069 | 2.56 | 20.2 | 0.1 |
| P45-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.381 | 1.85 | 20.2 | \#DIV/0! |


|  |  | Safety |  |  | Mobility |  |  |  | Total Factored Benefit | VMT <br> Factor | NPV <br> Factor | Performance Effectiveness Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Candidate Solution \# | Existing Regional Need | PostSolution Regional Need | Emphasis Factor | Factored Score | Existing Regional Need | PostSolution Regional Need | Emphasis Factor | Factored Score |  |  |  |  |
| P46 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.822 | 5.00 | 0.052 | 0.635 | 1.88 | 20.2 | 1.6 |
| P47 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | 0.000 | 1.07 | 20.2 | 0.0 |
| P47-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 0.35 | 20.2 | 0.0 |
| P47-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 0.77 | 20.2 | \#DIV/0! |
| P48 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P49 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P50 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P51 | 1.378 | 1.375 | 15.00 | 0.041 | 0.832 | 0.832 | 5.00 | 0.000 | 0.974 | 0.45 | 20.2 | 1.0 |
| P51-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.932 | 0.37 | 20.2 | 0.8 |
| P51-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 0.09 | 20.2 | \#DIV/0! |
| P52 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.756 | 5.00 | 0.380 | 2.573 | 4.51 | 20.2 | 8.5 |
| P52-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.992 | 3.49 | 20.2 | 2.5 |
| P52-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 1.201 | 3.38 | 20.2 | \#DIV/0! |
| P53 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P54 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.823 | 5.00 | 0.044 | 0.132 | 4.63 | 20.2 | 0.4 |
| P55 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.757 | 5.00 | 0.378 | 1.724 | 4.96 | 20.2 | 1.7 |
| P55-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.351 | 4.51 | 20.2 | 0.3 |
| P55-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.682 | 4.11 | 20.2 | \#DIV/0! |
| P55-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.312 | 2.60 | 20.2 | \#DIV/0! |
| P56 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.815 | 5.00 | 0.083 | 0.834 | 4.89 | 20.2 | 1.1 |
| P56-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.000 | 3.03 | 20.2 | 0.0 |
| P56-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.105 | 4.63 | 20.2 | \#DIV/0! |
| P56-3 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.646 | 1.12 | 20.2 | \#DIV/0! |
| P57 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P58 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |
| P60 | 1.378 | 1.372 | 15.00 | 0.091 | 0.832 | 0.824 | 5.00 | 0.042 | 0.813 | 3.47 | 8.8 | 55.1 |
| P60-1 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.268 | 2.56 | 8.8 | 13.5 |
| P60-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.412 | 1.85 | 8.8 | \#DIV/0! |
| P61 | 1.378 | 1.373 | 15.00 | 0.066 | 0.832 | 0.740 | 5.00 | 0.462 | 3.185 | 4.51 | 20.2 | 33.7 |
| P62 | 1.378 | 1.369 | 15.00 | 0.139 | 0.832 | 0.832 | 5.00 | 0.003 | 0.436 | 4.72 | 20.2 | 9.5 |
| P62-1 |  |  |  | 0.000 |  |  |  | 0.000 | 0.078 | 4.63 | 20.2 | 1.7 |
| P62-2 |  |  | 15.00 | 0.000 |  |  | 5.00 | 0.000 | 0.217 | 1.12 | 20.2 | \#DIV/0! |
| P63 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | 0.000 | 4.65 | 20.2 | \#DIV/0! |
| P59 | 1.378 | 1.378 | 15.00 | 0.000 | 0.832 | 0.832 | 5.00 | 0.000 | \#N/A | \#N/A | 20.2 | \#N/A |

## 2045 Prioritization (Page 3)

| Candidate Solution \# | Pavement |  | Bridge |  | Satety |  | Mobility |  | Freight |  | $\begin{aligned} & \text { Total } \\ & \text { Factored } \\ & \text { Score } \end{aligned}$ | Weighted Risk Factor | Segment Need | PrioritizationScore |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Score | \% | Score | \% | Score | \% | Score | \% | Score | \% |  |  |  |  |
| P1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.113 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.113 | 1.780 | 0.46 | 3 |
| P2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.094 | 64.5\% | 0.052 | 35.5\% | 0.000 | 0.0\% | 0.146 | 1.631 | 1.10 | 765 |
| P2-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.058 | 60.6\% | 0.038 | 39.4\% | 0.000 | 0.0\% | 0.095 | 1.614 | 1.65 |  |
| P2-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.005 | 43.3\% | 0.007 | 56.7\% | 0.000 | 0.0\% | 0.012 | 1.542 | 0.60 |  |
| P4 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P5 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.337 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.337 | 1.780 | 1.12 | 27 |
| P6 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.064 | 27.0\% | 0.172 | 73.0\% | 0.000 | 0.0\% | 0.236 | 1.473 | 0.43 | 1 |
| P7 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P9 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.837 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.837 | 1.780 | 1.03 | 64 |
| P10 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P11 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.016 | 40.6\% | 0.024 | 59.4\% | 0.000 | 0.0\% | 0.040 | 1.531 | 0.43 | 3 |
| P12 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.005 | 9.3\% | 0.048 | 90.7\% | 0.000 | 0.0\% | 0.053 | 1.399 | 0.43 | 1 |
| P13 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.073 | 7.7\% | 0.869 | 92.3\% | 0.000 | 0.0\% | 0.942 | 1.393 | 0.43 | 7 |
| P14 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.026 | 2.6\% | 0.983 | 97.4\% | 0.000 | 0.0\% | 1.009 | 1.371 | 0.43 | 5 |
| P15 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 1.12 | 0 |
| P16 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.208 | 22.1\% | 0.732 | 77.9\% | 0.000 | 0.0\% | 0.939 | 1.453 | 1.12 | 5 |
| P17 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.017 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.017 | 1.780 | 1.12 | 0 |
| P18 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.003 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.003 | 1.780 | 1.12 | 15 |
| P19 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.224 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.224 | 1.780 | 1.12 | 4 |
| P20 | 0.000 | 0.0\% | 0.000 | 0.0\% | 2.115 | 34.9\% | 3.954 | 65.1\% | 0.000 | 0.0\% | 6.070 | 1.506 | 0.90 | 450 |
| P20-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.352 | 28.0\% | 0.903 | 72.0\% | 0.000 | 0.0\% | 1.255 | 1.478 | 1.65 |  |
| P20-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.402 | 30.4\% | 0.921 | 69.6\% | 0.000 | 0.0\% | 1.323 | 1.488 | 1.59 |  |
| P20-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.240 | 22.4\% | 0.829 | 77.6\% | 0.000 | 0.0\% | 1.069 | 1.454 | 0.62 |  |
| P20-4 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.058 | 6.9\% | 0.789 | 93.1\% | 0.000 | 0.0\% | 0.847 | 1.389 | 0.69 |  |
| P20-5 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.347 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.347 | 1.780 | 0.37 |  |
| P21 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.628 | 23.0\% | 2.100 | 77.0\% | 0.000 | 0.0\% | 2.728 | 1.457 | 0.71 | 152 |
| P21-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.331 | 29.1\% | 0.806 | 70.9\% | 0.000 | 0.0\% | 1.137 | 1.482 | 0.73 |  |
| P21-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.010 | 1.1\% | 0.954 | 98.9\% | 0.000 | 0.0\% | 0.965 | 1.365 | 0.66 |  |
| P23 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.002 | 100.0\% | 0.000 | 0.0\% | 0.002 | 1.360 | 0.64 | 1 |
| P24 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.033 | 100.0\% | 0.000 | 0.0\% | 0.033 | 1.360 | 0.94 | 2 |
| P25 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P26 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.064 | 100.0\% | 0.000 | 0.0\% | 0.064 | 1.360 | 0.24 | 3 |


| Candidate <br> Solution \# | Pavement |  | Bridge |  | Safety |  | Mobility |  | Freight |  | Total Factored Score | Weighted Risk Factor | Segment Need | Prioritization Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Score | \% | Score | \% | Score | \% | Score | \% | Score | \% |  |  |  |  |
| P27 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.033 | 100.0\% | 0.000 | 0.0\% | 0.033 | 1.360 | 0.94 | 30 |
| P28 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.24 | 0 |
| P29 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.022 | 25.1\% | 0.067 | 74.9\% | 0.000 | 0.0\% | 0.089 | 1.466 | 0.24 | 0 |
| P30 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.055 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.055 | 1.780 | 0.29 | 0 |
| P31 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.069 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.069 | 1.780 | 0.29 | 0 |
| P32 | 0.000 | 0.0\% | 0.000 | 0.0\% | 1.335 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 1.335 | 1.780 | 1.12 | 2 |
| P33 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.528 | 100.0\% | 0.000 | 0.0\% | 0.528 | 1.360 | 0.28 | 1 |
| P33-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P33-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.485 | 100.0\% | 0.000 | 0.0\% | 0.485 | 1.360 | 0.24 | 0 |
| P34 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 1.320 | 100.0\% | 0.000 | 0.0\% | 1.320 | 1.360 | 0.63 | 1 |
| P34-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 |  |
| P34-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.918 | 100.0\% | 0.000 | 0.0\% | 0.918 | 1.360 | 0.94 |  |
| P35 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.265 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.265 | 1.780 | 0.40 | 1 |
| P35-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.049 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.049 | 1.780 | 0.29 |  |
| P35-2 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.46 |  |
| P35-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.009 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.009 | 1.780 | 0.62 |  |
| P36 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P37 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.917 | 8.8\% | 9.559 | 91.2\% | 0.000 | 0.0\% | 10.476 | 1.397 | 0.75 | 34 |
| P37-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.205 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.205 | 1.780 | 0.37 |  |
| P37-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.010 | 0.8\% | 1.284 | 99.2\% | 0.000 | 0.0\% | 1.294 | 1.363 | 0.69 |  |
| P37-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.077 | 4.4\% | 1.683 | 95.6\% | 0.000 | 0.0\% | 1.760 | 1.378 | 0.62 |  |
| P37-4 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.134 | 4.9\% | 2.585 | 95.1\% | 0.000 | 0.0\% | 2.719 | 1.381 | 1.59 |  |
| P37-5 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.127 | 4.8\% | 2.541 | 95.2\% | 0.000 | 0.0\% | 2.668 | 1.380 | 1.65 |  |
| P37-6 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.029 | 12.3\% | 0.205 | 87.7\% | 0.000 | 0.0\% | 0.234 | 1.412 | 0.64 |  |
| P37-7 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.60 |  |
| P39 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.292 | 12.2\% | 2.097 | 87.8\% | 0.000 | 0.0\% | 2.389 | 1.411 | 0.69 | 7 |
| P39-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.126 | 10.4\% | 1.090 | 89.6\% | 0.000 | 0.0\% | 1.216 | 1.404 | 0.94 |  |
| P39-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.398 | 100.0\% | 0.000 | 0.0\% | 0.398 | 1.360 | 0.43 |  |
| P40 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.237 | 17.1\% | 1.149 | 82.9\% | 0.000 | 0.0\% | 1.386 | 1.432 | 0.94 | 27 |
| P41 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.245 | 26.6\% | 0.677 | 73.4\% | 0.000 | 0.0\% | 0.922 | 1.472 | 0.30 | 0 |
| P42 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.075 | 8.8\% | 0.776 | 91.2\% | 0.000 | 0.0\% | 0.852 | 1.397 | 0.46 | 6 |
| P42-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.035 | 33.8\% | 0.069 | 66.2\% | 0.000 | 0.0\% | 0.104 | 1.502 | 0.60 |  |
| P42-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.021 | 3.1\% | 0.642 | 96.9\% | 0.000 | 0.0\% | 0.663 | 1.373 | 0.24 |  |
| P43 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.002 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.002 | 1.780 | 0.24 | 0 |
| P44 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P45 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.494 | 100.0\% | 0.000 | 0.0\% | 0.494 | 1.360 | 0.46 | 1 |
| P45-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.069 | 100.0\% | 0.000 | 0.0\% | 0.069 | 1.360 | 0.60 |  |
| P45-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.381 | 100.0\% | 0.000 | 0.0\% | 0.381 | 1.360 | 0.24 |  |
| P46 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.635 | 100.0\% | 0.000 | 0.0\% | 0.635 | 1.360 | 0.20 | 0 |
| P47 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.43 | 0 |
| P47-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.12 |  |
| P47-2 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.55 |  |
| P48 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P49 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P50 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P51 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.974 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.974 | 1.780 | 0.53 | 1 |
| P51-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.932 | 100.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.932 | 1.780 | 0.78 |  |
| P51-2 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.08 |  |
| P52 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 2.573 | 100.0\% | 0.000 | 0.0\% | 2.573 | 1.360 | 0.66 | 8 |
| P52-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.992 | 100.0\% | 0.000 | 0.0\% | 0.992 | 1.360 | 0.62 |  |
| P52-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 1.201 | 100.0\% | 0.000 | 0.0\% | 1.201 | 1.360 | 0.69 |  |
| P53 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P54 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.132 | 100.0\% | 0.000 | 0.0\% | 0.132 | 1.360 | 0.64 | 0 |
| P55 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 1.724 | 100.0\% | 0.000 | 0.0\% | 1.724 | 1.360 | 0.84 | 2 |
| P55-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.351 | 100.0\% | 0.000 | 0.0\% | 0.351 | 1.360 | 0.94 |  |
| P55-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.682 | 100.0\% | 0.000 | 0.0\% | 0.682 | 1.360 | 0.43 |  |
| P55-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.312 | 100.0\% | 0.000 | 0.0\% | 0.312 | 1.360 | 1.12 |  |
| P56 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.834 | 100.0\% | 0.000 | 0.0\% | 0.834 | 1.360 | 0.52 | 1 |
| P56-1 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.46 |  |
| P56-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.105 | 100.0\% | 0.000 | 0.0\% | 0.105 | 1.360 | 0.64 |  |
| P56-3 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.646 | 100.0\% | 0.000 | 0.0\% | 0.646 | 1.360 | 0.30 |  |
| P57 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P58 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |
| P60 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.326 | 40.1\% | 0.487 | 59.9\% | 0.000 | 0.0\% | 0.813 | 1.528 | 0.46 | 39 |
| P60-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.200 | 74.4\% | 0.069 | 25.6\% | 0.000 | 0.0\% | 0.268 | 1.673 | 0.60 |  |
| P60-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.036 | 8.6\% | 0.376 | 91.4\% | 0.000 | 0.0\% | 0.412 | 1.396 | 0.24 |  |
| P61 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.186 | 5.9\% | 2.999 | 94.1\% | 0.000 | 0.0\% | 3.185 | 1.385 | 1.03 | 48 |
| P62 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.402 | 92.2\% | 0.034 | 7.8\% | 0.000 | 0.0\% | 0.436 | 1.747 | 0.57 | 9 |
| P62-1 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.075 | 96.4\% | 0.003 | 3.6\% | 0.000 | 0.0\% | 0.078 | 1.765 | 0.64 |  |
| P62-2 | 0.000 | 0.0\% | 0.000 | 0.0\% | 0.188 | 86.9\% | 0.028 | 13.1\% | 0.000 | 0.0\% | 0.217 | 1.725 | 0.30 |  |
| P63 | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.000 | \#DIV/0! | 0.29 | 0 |
| P59 | 0.000 | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | \#N/A | 0.000 | \#N/A | \#N/A | \#N/A | \#N/A | 0 |

Appendix H - Project Recommendation Details

## Project Name: SR 69 / Glassford Hill Rd (AG)



## Benefit(s):

- Mobility Benefit - Congestion relief at the State Route 69 / Glassford Hill Road signalized intersection
- Safety Benefit - Associated reduction in congestion-related intersection crashes

Prior Documentation: N/A

## Additional Information:

- Signal modifications at this location is intended to better coordinate with the Centre Court signalized intersection to the north of State Route 69 on Glassford Hill Road.


## Project Name: SR 69 Adaptive Signals (AJ)



## Cost Estimate:

Design Cost: $\$ 50,000$
Construction Cost: $\$ 800,000$
R/W Needed: No

## Scope of Work:

- Implement Adaptive Signal System



## Benefit(s):

- Mobility Benefit - Congestion relief through the urbanized section of State Route 69
- Safety Benefit - Associated reduction in congestion-related crashes

Prior Documentation: N/A

## Additional Information:

- For additional information regarding Adaptive Signal Control Technology reference the following FHWA documentation: https://www.fhwa.dot.gov/innovation/everydaycounts/edc-1/asct.cfm


## Project Name: Willow Creek Rd Adaptive Signals (BH)

| Project Route: Willow Creek Road <br> Project Limits: Iron Springs Road - Pioneer <br> Parkway |
| :--- |
| Jurisdiction(s): City of Prescott |

## Cost Estimate:

Design Cost: $\$ 50,000$
Construction Cost: \$720,000
R/W Needed: No

## Scope of Work:

- Implement Adaptive Signal System



## Benefit(s):

- Mobility Benefit - Congestion relief through the full length of Willow Creek Road
- Safety Benefit - Associated reduction in congestion-related crashes

Prior Documentation: N/A

## Additional Information:

- For additional information regarding Adaptive Signal Control Technology reference the following FHWA documentation: https://www.fhwa.dot.gov/innovation/everydaycounts/edc-1/asct.cfm


## Project Name: SR 89 Shoulder Widening (AR)



## Benefit(s):

- Safety benefit - Reduction in roadway departure crashes
- Safety \& mobility benefit - Improved emergency and/or disabled vehicle pull-off width
- Safety \& mobility benefit - Improved bicycling accommodation


## Prior Documentation:

CYMPO Regional Strategic Transportation Safety Plan (CYMPO, 2018)

## Additional Information:

- For additional information from the CYMPO Regional Strategic Transportation Safety Plan reference the following report link:
https://www.cympo.org/wp-content/uploads/2018/12/Regional-Strategic-Transportation-Safety-Plan Burgess Niple.pdf


## Project Name: Glassford Hill Rd Adaptive Signals (H)

Project Route: Glassford Hill Road
Project Limits: State Route 69 - State Route 89A

Jurisdiction(s): Town of Prescott Valley

## Cost Estimate:

Design Cost: $\$ 50,000$
Construction Cost: $\$ 450,000$
R/W Needed: No

## Scope of Work:

- Implement Adaptive Signal System



## Benefit(s):

- Mobility Benefit - Congestion relief through the full length of Glassford Hill Road
- Safety Benefit - Associated reduction in congestion-related crashes

Prior Documentation: N/A

## Additional Information:

- For additional information regarding Adaptive Signal Control Technology reference the following FHWA documentation: https://www.fhwa.dot.gov/innovation/everydaycounts/edc-1/asct.cfm


## Project Name: SR 89 TI EB Dual Left-Turn (AS)

Project Route: State Route 89A / State Route 89
Project Limits: Intersection only

Jurisdiction(s): ADOT \& City of Prescott

## Cost Estimate:

Design Cost: \$26,000
Construction Cost: $\$ 130,000$
R/W Needed: No

## Scope of Work:

- Construct second EB off-ramp left-turn lane



## Benefit(s):

- Mobility Benefit - Congestion relief at the State Route 89A / State Route 89 Eastbound offramp


## Prior Documentation:

State Route 89A - State Route 89 to Robert Road Transportation Study (ADOT, 2018)

## Additional Information:

- $15 \%$ Design Cost Estimates were completed as part of the State Route 89A - State Route 89 to Robert Road Transportation Study (reference Appendix 9 for 15\% Design Plans)
- For additional information from the State Route 89A - State Route 89 to Robert Road Transportation Study reference the following report link: https://www.cympo.org/wp-content/uploads/2019/11/SR89A-Final-Report.pdf


## Project Name: SR 89 / Del Rio Centerline Rumble Strips \& Safety Improvements (AN)

## Project Route: State Route 89

Project Limits: MP 333.4 - MP 335.9

Jurisdiction(s): ADOT \& Unincorporated Yavapai
County (Paulden)

## Cost Estimate:

Design Cost: \$99,000
Construction Cost: \$990,000
R/W Needed: No

## Scope of Work:

- Install centerline rump strip from MP 333.4 335.9



## Benefit(s):

- Safety Benefit - Improved driver attention infrastructure
- Safety Benefit - Reduction in head-on and crossing-the-centerline crashes


## Prior Documentation:

SR69/SR 89A/SR 89 Corridor Profile Study (ADOT, 2018)

## Additional Information:

- For additional information from the SR69/SR 89A/SR 89 Corridor Profile Study reference the following report link:
https://azdot.gov/sites/default/files/2019/08/SR69-89A-89-Final-Report.pdf


## Project Name: Wildlife Warning Signing (BG)

Project Route: State Route 89
Project Limits: MP 334 - MP 348

Jurisdiction(s): ADOT \& Unincorporated Yavapai County (Paulden)

## Cost Estimate:

Design Cost: N/A
Construction Cost: \$10,000
R/W Needed: No

## Scope of Work:

- Install Wildlife Warning Signage from MP 334
- MP 348 (4 signs)



## Benefit(s):

- Safety Benefit - Improved driver awareness and reduction in roadway wildlife- and animalinvolved crashes
- Wildlife Benefit - Reduction wildlife-involved crashes


## Prior Documentation:

State Route 89 Chino Valley to Forest Boundary Transportation Study (ADOT/CYMPO, 2017);
SR69/SR 89A/SR 89 Corridor Profile Study (ADOT, 2018)

## Additional Information:

- Coordinate directly with CYMPO EMAC in all wildlife-related infrastructure
- For additional information from the State Route 89 Chino Valley to Forest Boundary Transportation Study reference the following report link: https://www.cympo.org/wp-content/uploads/2013/10/SR89-Final-Report 042662017.pdf
- For additional information from the SR69/SR 89A/SR 89 Corridor Profile Study reference the following report link:
https://azdot.gov/sites/defaultfiles/2019/08/SR69-89A-89-Final-Report.pdf


## Project Name: SR 69 / SR 169 Intersection Improvements (AH)

Project Route: State Route 69 / State Route 169
Project Limits: Intersection only

Jurisdiction(s): ADOT, Town of Prescott Valley \&
Town of Dewey-Humboldt

## Cost Estimate:

Design Cost: \$437,000
Construction Cost: \$4,370,000
R/W Needed: Yes

## Scope of Work:

- Convert traffic signal to two-lane roundabout



## Benefit(s):

- Mobility Benefit - Congestion relief at the State Route 69 / State Route 169 intersection (currently signalized). Specific congestion relief for the State Route 69 (south) to State Route 169 (east) turning movement
- Safety Benefit - reduction in intersection crashes by elimination of intersection conflict points

Prior Documentation:
N/A

## Additional Information:

N/A

## Project Name: SR 89 Willow Lake Rd - Phippen Tr Widening (AY)

| Project Route: State Route 89 |
| :--- |
| Project Limits: Willow Lake Road - Phippen Trail |

Jurisdiction(s): City of Prescott

## Cost Estimate:

Design Cost: \$1,000,000
Construction Cost: \$8,600,000
R/W Needed: Yes

## Scope of Work:

- Widen SR 89 from 2 lanes to 4 lanes



## Benefit(s):

- Mobility Benefit - Congestion relief through the Granite Dells portion of State Route 89
- Mobility Benefit - Addressing the only remaining 2-lane bottleneck along the State Route 89 between State Route 69 and State Route 89A


## Prior Documentation:

2040 CYMPO Regional Transportation Plan (CYMPO, 2015)

## Additional Information:

- This widening project is identified in the City of Prescott's Streets Infrastructure Improvement Plan and is partial funding available through developer impact fee collections.


## Project Name: SR 69 Widening (AK)

Project Route: State Route 69
Project Limits: Complete all segments between State Route 169 and State Route 89

Jurisdiction(s): ADOT, City of Prescott, Town of Prescott Valley \& Town of Dewey-Humboldt

## Cost Estimate:

Design Cost: $\$ 3,325,000$
Construction Cost: \$33,250,000
R/W Needed: Yes

## Scope of Work:

- Incrementally widen SR 69 from 4 lanes to 6 lanes between SR 169 - SR 89



## Benefit(s):

- Mobility Benefit - Congestion relief through the urbanized section of State Route 69
- Safety Benefit - Associated reduction in congestion-related crashes


## Prior Documentation:

2040 CYMPO Regional Transportation Plan (CYMPO, 2015); SR69/SR 89A/SR 89 Corridor Profile
Study (ADOT, 2018)

## Additional Information:

- Final Design plans for SR 69 widening from 4 lanes to 6 lanes between Prescott Lakes Parkway and Frontier Village is currently underway. Construction is programmed within the ADOT Five-Year Construction Program in FY 2021.
- For additional information from the SR69/SR 89A/SR 89 Corridor Profile Study reference the following report link:
https://azdot.gov/sites/defaultfiles/2019/08/SR69-89A-89-Final-Report.pdf


## Project Name: SR 89 Widening (Phase II) (AX)

| Project Route: State Route 89 |
| :--- |
| Project Limits: State Route 89A - Deep Well Ranch |
| Road |

Jurisdiction(s): ADOT \& City of Prescott

## Cost Estimate:

Design Cost: \$619,000
Construction Cost: \$6,190,000
R/W Needed: Yes

## Scope of Work:

- Widen SR 89 from 4 lanes to 6 lanes between SR 89A - Deep Well Ranch Rd



## Benefit(s):

- Mobility Benefit - Future congestion relief incurred through increasing development activity
- Safety Benefit - Associated reduction in congestion-related crashes


## Prior Documentation:

2040 CYMPO Regional Transportation Plan (CYMPO, 2015)

## Additional Information:

- Construction from a 2-lane to 4-lane facility was completed in FY 2020


## Project Name: Sundog Connector (BE)

Project Route: Sundog Connector (new route) Project Limits: Sundog Ranch Road - Prescott Lakes Parkway

Jurisdiction(s): City of Prescott

## Cost Estimate:

Design Cost: \$2,772,000
Construction Cost: \$27,720,000
R/W Needed: Yes

## Scope of Work:

- Construct new 4-lane facility



## Benefit(s):

- Mobility Benefit - Congestion relief on State Route 69. Sundog Connector would serve as an east-west reliever route to State Route 69 between the Town of Prescott Valley and State Route 89.


## Prior Documentation:

2040 CYMPO Regional Transportation Plan (CYMPO, 2015); Sundog Connector Corridor Study (City of Prescott/ADOT, 2013)

## Additional Information:

- For additional information from the Sundog Connector Corridor Study reference the following report link:
https://apps.azdot.gov/ADOTLibrary/Multimodal Planning Division/Planning Assistance fo r Rural_Areas_Studies/PARA-Prescott-Sundog_Connector-1306.pdf


## Project Name: SR 89 Widening (Phase I) (AW)

Project Route: State Route 89
Project Limits: Deep Well Ranch Road - Center
Street

Jurisdiction(s): ADOT, City of Prescott, Town of Chino Valley \& Unincorporated Yavapai County

## Cost Estimate:

Design Cost: $\$ 3,080,000$
Construction Cost: \$30,800,000
R/W Needed: Yes

## Scope of Work:

- Widen SR 89 from 4 lanes to 6 lanes between Deep Well Ranch Rd - Center St



## Benefit(s):

- Mobility Benefit - Congestion relief for travel to and from the Town of Chino Valley
- Safety Benefit - Associated reduction in congestion-related crashes


## Prior Documentation:

2040 CYMPO Regional Transportation Plan (CYMPO, 2015)

## Additional Information:

N/A

## Project Name: SR 89 Widening (AU)

Project Route: State Route 89
Project Limits: Road 3N - Road 4N

Jurisdiction(s): ADOT \& Town of Chino Valley

## Cost Estimate:

Design Cost: \$649,000
Construction Cost: \$6,490,000
R/W Needed: Yes

## Scope of Work:

- Widen SR 89 from 2 lanes to 4 lanes w/medians between Road 3N - Road 4N



## Benefit(s):

- Mobility Benefit - An element of incremental congestion relief for to the northern portion of the Town of Chino Valley
- Safety Benefit - Associated reduction in congestion-related crashes


## Prior Documentation:

State Route 89 Chino Valley to Forest Boundary Transportation Study (ADOT/CYMPO, 2017)

## Additional Information:

- Reference State Route 89 Chino Valley to Forest Boundary Transportation Study Appendix FR-1 for Pre-scoping Reports
- For additional information from the State Route 89 Chino Valley to Forest Boundary Transportation Study reference the following report link: https://www.cympo.org/wp-content/uploads/2013/10/SR89-Final-Report 042662017.pdf



## Project Name: Glassford Hill Rd Widening (L)

Project Route: Glassford Hill Road
Project Limits: Long Look Dr - State Route 89A

Jurisdiction(s): Town of Prescott Valley

## Cost Estimate:

Design Cost: \$635,000
Construction Cost: \$6,350,000
R/W Needed: No

## Scope of Work:

- Widen Glassford Hill Rd from 4 lanes to 6 lanes



## Benefit(s):

- Mobility Benefit - Congestion relief north of Long Look Drive along the existing Glassford Hill Road alignment, in conjunction with increased surrounding development activity
- Safety Benefit - Associated reduction in congestion-related crashes


## Prior Documentation:

2040 CYMPO Regional Transportation Plan (CYMPO, 2015)

## Additional Information:

N/A

## Project Name: SR 89 Widening (AT)

## Project Route: State Route 89

Project Limits: Old Highway 89 to Frontier Road

Jurisdiction(s): ADOT \& Unincorporated Yavapai
County (Paulden)

## Cost Estimate:

Design Cost: \$1,454,000
Construction Cost: \$14,540,000
R/W Needed: Yes

## Scope of Work:

- Widen SR 89 from 2 lanes to 4 lanes w/medians between Old Highway 89 to Frontier Rd.
- Construct one-lane roundabouts at Old Highway 89 and Frontier Rd



## Benefit(s):

- Mobility Benefit - Congestion relief for travel north of Town of Chino Valley
- Safety \& mobility benefit - Safer and more efficient turning on and off State Route 89 at Old Highway 89 and Frontier Road (both currently unsignalized)
- Safety Benefit - Associated reduction in congestion-related crashes

Prior Documentation: State Route 89 Chino Valley to Forest Boundary Transportation Study (ADOT/CYMPO, 2017); SR69/SR 89A/SR 89 Corridor Profile Study (ADOT, 2018)

## Additional Information:

- For additional information from the State Route 89 Chino Valley to Forest Boundary Transportation Study reference the following report link: https://www.cympo.org/wp-content/uploads/2013/10/SR89-FinalReport 042662017.pdf
- For additional information from the SR69/SR 89A/SR 89 Corridor Profile Study reference the following report link: https://azdot.gov/sites/default/files/2019/ 08/SR69-89A-89-Final-Report.pdf



## Project Name: SR 89 Widening (AV)



## Benefit(s):

- Mobility Benefit - An element of incremental congestion relief for to the northern portion of the Town of Chino Valley
- Safety Benefit - Associated reduction in congestion-related crashes

Prior Documentation: State Route 89 Chino Valley to Forest Boundary Transportation Study (ADOT/CYMPO, 2017)

## Additional Information:

- For additional information from the State Route 89 Chino Valley to Forest Boundary Transportation Study reference the following report link: https://www.cympo.org/wpcontent/uploads/2013/10/S R89-FinalReport 042662017.pdf



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