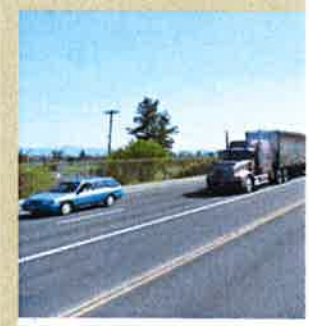
I-5 Exit 33 (Central Point)
Interchange Area Management Plan
Volume 1

June 2015

Oregon Department of Transportation



I-5 Exit 33 Interchange Area Management Plan
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EXECUTIVE SUMMARY

The I-5 Exit 33 Interchange Area Management Plan (IAMP) examines how the interchange and surrounding street system operate both now and over the next 20 years. The IAMP identifies strategies to preserve and improve the safety and capacity of the interchange for the foreseeable future.

IAMP Goals and Objectives

The goal of this IAMP is to develop a plan for improvements for I-5 Exit 33 that can be implemented over time to maximize the function of the existing interchange and address the long-term needs of Central Point and other Rogue Valley communities. Five objectives provide more specific direction for the IAMP.

Regulatory Framework

This IAMP establishes mobility targets and access management standards for the interchange itself based on policy in the Oregon Highway Plan (OHP). City of Central Point and Jackson County standards for mobility and access spacing apply to roadways not under state jurisdiction.

Identified Deficiencies

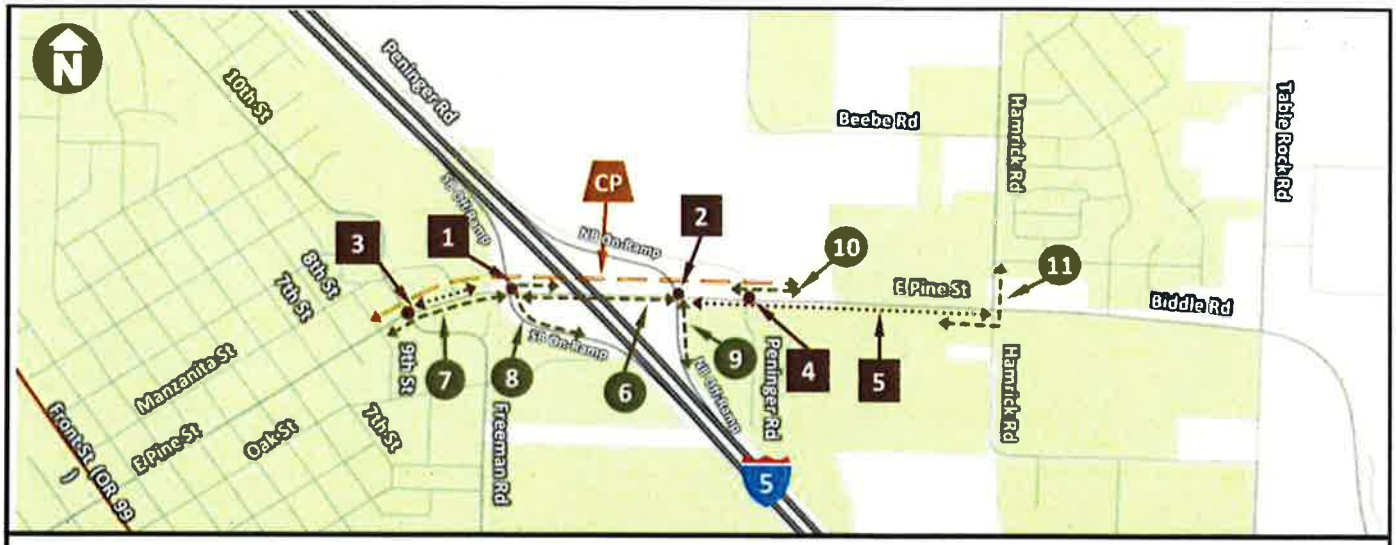
Baseline conditions were evaluated to understand land use, identify potential environmental constraints, and determine existing (year 2010) and future (year 2035) transportation deficiencies. Identified deficiencies include:

- Adjacent public road intersections do not meet interchange spacing standards.
- The designated right-turn lane on eastbound East Pine Street at the southbound ramp terminal conflicts with the through bike lane.
- No sidewalk is present on the south side of East Pine Street between the ramp terminals.
- Future operations at the I-5 Southbound Ramp Terminal are expected to exceed the OHP performance target in the AM peak hour.
- Future operations at the I-5 Northbound Ramp Terminal are expected exceed the OHP performance target in the PM peak hour.
- Future queuing on the exit ramps could impact ramp safety and possibly impact freeway traffic flow and safety.
- Future traffic demand at the Peninger Road intersection with East Pine Street is expected to exceed capacity and queuing could impact the intersection with the I-5 Northbound Ramps.
- Future traffic demand at the Hamrick Road intersection with East Pine Street is expected to exceed capacity.

East Pine Street Approaching Peninger Road

IAMP Improvements

The I-5 Exit 33 IAMP improvements address the identified deficiencies, improve multimodal functionality, and accommodate traffic, including freight, safely and efficiently into the future. The location of IAMP improvements is shown in the figure on the following page. This figure includes a brief description of the projects along with a general priority. Detailed project sheets have been prepared for each improvement.



1 **I-5 Southbound Ramp Terminal/East Pine Street TSM – Signal Timing Modifications**: *Maintain traffic signal timing to safely manage queues on the SB off-ramp (Ongoing)*

2 **I-5 Northbound Ramp Terminal/East Pine Street TSM – Signal Timing Modifications**: *Maintain traffic signal timing to safely manage queues on the NB off-ramp (Ongoing)*

3 **10th Street/Freeman Road/East Pine Street TSM – Signal Timing Modifications and Queue Storage**: *Maintain signal progression, change signal phasing, extend westbound left-turn lane striping on East Pine Street to provide more queue storage, consider access restrictions to improve safety (Ongoing)*

4 **Peninger Road/East Pine Street TSM – Signal Timing Modifications**: *Maintain signal progression to avoid queuing conflict that affects I-5 NB Ramp Terminal, and change signal phasing (Ongoing)*

5 **East Pine Street TSM – Signal Timing Modifications**: *Maintain signal progression, particularly in the eastbound direction, to avoid queuing that affects I-5 NB ramp terminal (Ongoing)*

6 **South Sidewalk between Ramp Terminals**: *Add a sidewalk on the south side of East Pine Street between the northbound and southbound ramp terminals (High to Medium Priority)*

7 **Bike Lane Improvements**: *Restripe eastbound travel lanes between 9th Street and the I-5 southbound ramp to improve bike lane transitions (High Priority)*

8 **I-5 Southbound On-Ramp – Dual Westbound Left-Turn Lanes**: *Add a second westbound left-turn lane on East Pine Street onto the I-5 southbound on-ramp and a second southbound receiving lane on the I-5 southbound on-ramp (Medium to Low Priority)*

9 **I-5 Northbound Ramp Terminal – Dual Right-Turn Lanes**: *Widen the I-5 northbound off-ramp to add a second right-turn lane at the northbound approach to East Pine Street (Medium to Low Priority)*

10 **Peninger Road/East Pine Street Intersection Improvements**: *Implement Central Point TSP Tier 2 Project #236 as revised – Widen East Pine Street to accommodate a third westbound through travel lane, maintain bike lanes, and add sidewalks where necessary (Medium to Low Priority)*

11 **Hamrick Road/East Pine Street Intersection Improvements**: *Implement Central Point TSP Tier 1 Project #216 – Widen west and north approaches to add a dual eastbound left-turn lane and second northbound receiving lane (Medium to Low Priority)*

CP **Proposed City Shared Use Path Project**: *Construct a shared use path on the north side of East Pine Street from 9th Street to the Bear Creek Greenway (Priority established by City)*

I-5 Exit 33 (Central Point) IAMP

Legend

- Transportation System Management Improvements
- Infrastructure Improvements
- Central Point Improvements

Locations of IAMP Improvements

Implementation

Implementation of the I-5 Exit 33 IAMP will need to occur at the local and state level. The plan will be adopted as an amendment to the OHP as a facility plan by the Oregon Transportation Commission. The plan will also be adopted as an amendment to the City of Central Point TSP.

State Actions:

- After the City of Central Point IAMP adoption, the OTC will adopt the I-5 Exit 33 IAMP as a transportation facility plan – an amendment to the OHP, per PLA 01, ODOT Transportation Facility Plan Adoption Process, effective October 12, 2006.
- ODOT will continue to coordinate with the City of Central Point and Jackson County as planning documents get updated and amended and during the development review process to ensure the interchange is protected.

City of Central Point Actions:

- Adopt this IAMP as a refinement plan to its TSP
- Retain, through adoption of the IAMP, current adopted Comprehensive Plan and Land Development Code designations and regulations to ensure that the land uses within the IMSA remain supportive of the function of the interchange.

- When future land use actions are proposed, continue to coordinate with ODOT to ensure that actions and improvements are consistent with the defined function of the IAMP.

Adoption of provisions of the City of Central Point Comprehensive Plan and Land Development Code by reference into this IAMP ensures that there would be no violation of the mobility performance targets for the interchange and related facilities.

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VOLUME 2: REFERENCE MATERIAL (Companion Document)

Technical Memorandum #1: Definition and Background
Technical Memorandum #2: Existing Conditions Analysis
Technical Memorandum #3: Future Baseline Traffic Conditions
Technical Memorandum #4: Alternatives Analysis
Technical Memorandum #5: Preferred Alternative
Technical Memorandum #6: Access Management Plan
Technical Memorandum #7: Interchange Management Actions
Technical Memorandum #8: Public Involvement Summary
Technical Memorandum #9: Recommended Code and Plan Amendments
Traffic Impact Analysis – Gebhard Road Intersection
Design Exception Approval
Comment Log – Final Draft IAMP May 2015

1. INTRODUCTION

The Oregon Department of Transportation (ODOT) encourages the development of Interchange Area Management Plans (IAMPs) to maintain and improve freeway performance and safety by improving system efficiency and management before adding capacity. This IAMP is intended to protect the function of the interchange for the foreseeable future.

1.1. Interchange Function

I-5 Exit 33 (Central Point) is an urban interchange that currently functions as the main access to the City of Central Point in Jackson County as well as providing access to the Rogue Valley International-Medford Airport and developing industrial areas. It also connects to North Medford via Front Street to the west and Biddle Road to the east.

The interchange ramps connect with East Pine Street, the primary east-west route through Central Point.

The interchange itself has a standard diamond layout with approximately 1,200 feet between the northbound and southbound ramp terminals. The bridge over I-5 is five lanes wide with a sidewalk on the north side and bike lanes on both sides. Both the northbound and southbound ramp terminals have multi-lane approaches to East Pine Street.

West of the interchange, East Pine Street serves downtown Central Point before it connects with Oregon Highway 99 (OR 99) and continues into primarily residential areas. Downtown Central Point is characterized by a traditional grid system layout of streets with the first intersection located just 400 feet from the southbound interchange ramps. The Central Point Transportation System Plan (TSP) classifies East Pine Street as a principal arterial from 10th Street eastward across the freeway to Peninger Road. West of 10th Street, as it enters downtown, East Pine Street is classified as a minor arterial and it narrows to four lanes with on-street parking.

From the interchange eastward towards the airport, East Pine Street is part of the National Highway System (NHS) and is classified as an intermodal connector[1] from I-5 to Oregon Highway 62 (OR 62). It serves developing commercial and industrial areas along with the Rogue Valley International-Medford Airport and some residential areas. In general, intersections and other accesses are widely spaced with emphasis on through traffic and freight movement. However, the first intersection, Peninger Road, is located just 500 feet east of the northbound ramp and provides access to the Jackson County Fairgrounds to the north and a truck stop and other commercial facilities to the south.

I-5 Exit 33 Interchange and Surrounding Lands

[1] Intermodal Connectors provide access between major intermodal facilities and the other four subsystems making up the National Highway System. http://www.fhwa.dot.gov/planning/nhs/

1.2. Problem Statement

The current Central Point population is approximately 17,375 residents. By the year 2030, Central Point's population is estimated to be almost 26,000[2], making it the second largest city in the Rogue Valley. I-5 Exit 33 will be affected by growing traffic volumes on OR 99, OR 62, and more traffic, including increased freight movements, will be destined for I-5. The potential for additional development, particularly to the north and east, where two urban reserve locations are identified in the *Greater Bear Creek Valley Regional Plan* (GBCVRP) and future fairground expansions, will further exacerbate these issues.

The spacing of the ramp terminals and other access points along East Pine Street does not meet current access standards. Queue spillback between intersections can already be problematic at certain times of the day and during events at the Jackson County Fairgrounds. High truck volumes near the interchange exacerbate queuing issues since trucks require more storage space than passenger vehicles. As traffic volumes continue to grow, the proximity of these intersections will affect the safe function of the interchange area.

In addition to these operational concerns, the interchange has identified bicycle and pedestrian geometric deficiencies. The designated right-turn lane on eastbound East Pine Street at the southbound ramp terminal conflicts with the through bike lane.[3] Pedestrians have a sidewalk on the north side of East Pine Street between the ramp terminals but no sidewalk is present on the south side. Although directed to cross to the north sidewalk, pedestrians have been observed walking in the shoulder on the south side of the street.

East Pine Street is one of three I-5 crossings in Central Point. The others, Upton Road and Table Rock Road, lie approximately one mile to the north and one and one-half miles to the south, respectively. These are also the only crossings of Bear Creek, which runs parallel to and east of I-5. Peninger Road, which serves those land uses between Bear Creek and I-5, connects northward to Upton Road but has no connections across either the freeway or the creek south of East Pine Street. With these limited crossings, demand will continue to grow and focus on East Pine Street.

Future traffic growth at the interchange indicates that long-term operational deficiencies may develop at the freeway ramps. As the intersections at the ends of the ramps become more congested, long queues could begin to create safety concerns for traffic exiting the freeway.

1.3. IAMP Study Area

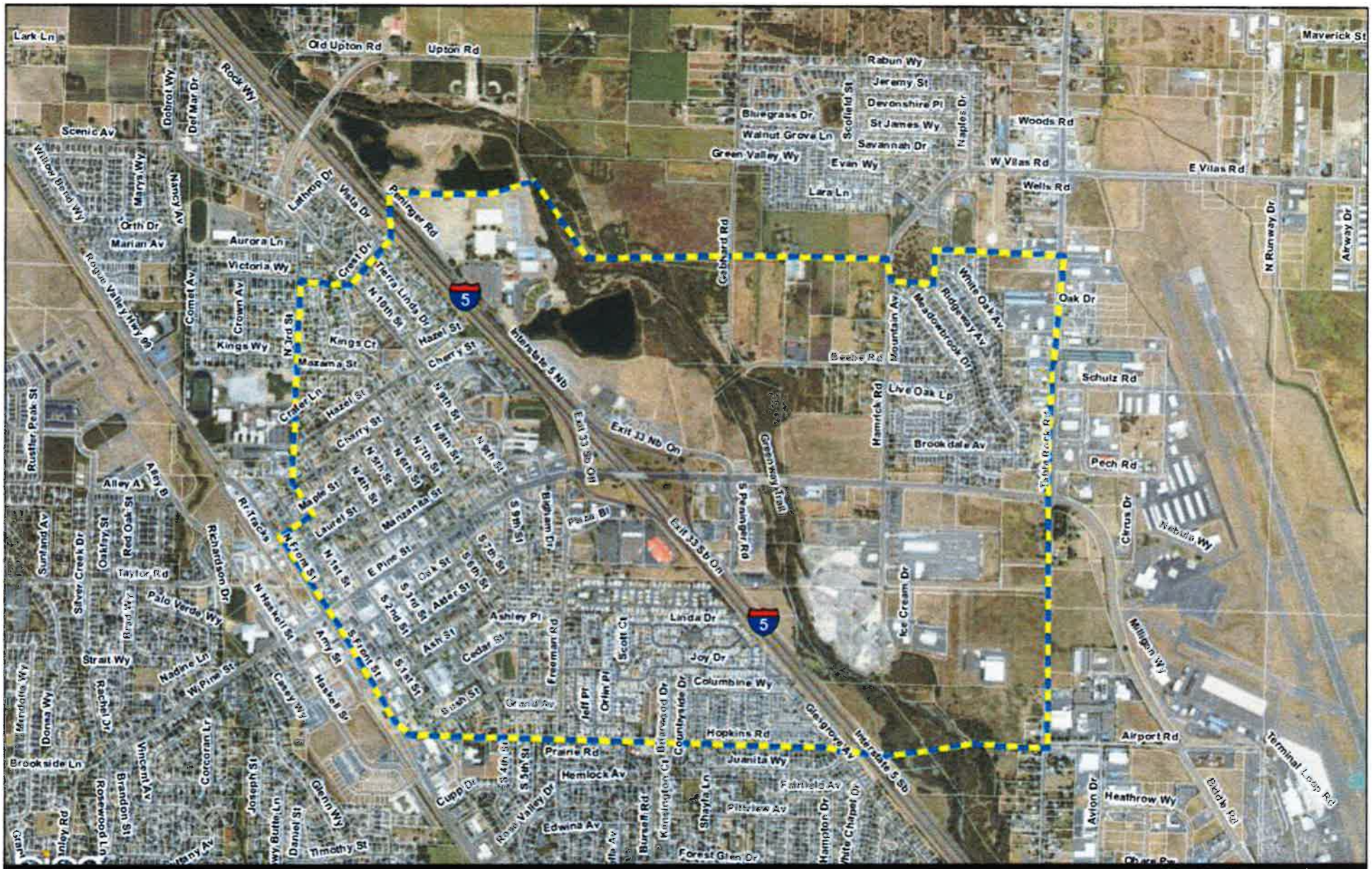
The interchange management study area (IMSA) delineates the vicinity in which transportation facilities, land uses, and road approaches may affect operations at the interchange. The IMSA should extend a minimum of ½ mile[4] in all directions and should be large enough to "address both direct and indirect transportation and land uses." As shown in Figure 1, the IMSA includes the interchange, developed areas of Central Point west of I-5, and largely undeveloped properties east of I-5 where growth will likely occur.

Although the boundaries of the IMSA concentrate around the interchange, the potential growth of Central Point and the surrounding metropolitan area is also accounted for in future conditions. Land uses and population forecasts are based on the adopted Comprehensive Plans and Zoning for the City of Central Point and Jackson County.

[2] City of Central Point Transportation System Plan, 2008 to 2030, December 18, 2008, page 14.

[3] Deficiency identified in the I-5 State of the Interstate Report 2000, ODOT.

[4] Interchange Access Management Plan Guidelines, ODOT, April 2013.



I-5 Exit 33 (Central Point) IAMP

1,400 700 0 1,400 Feet

Source Data: ESRI, Jackson County, Microsoft (2001-09)

Legend

Study Area Boundary

Taxlot boundaries indicated in white

Figure 1

Project Vicinity and Study Area

1.4. IAMP Goals and Objectives

The goals of this IAMP are to develop a plan for improvements for I-5 Exit 33 that can be implemented over time to maximize the function of the existing interchange and address the long-term needs of Central Point and other Rogue Valley communities.

The objectives of the IAMP are to:

- Protect the function of the interchange and East Pine Street as specified in the Oregon Highway Plan (OHP), RVMPO Regional Transportation Plan, and City of Central Point Transportation System Plan.
- Develop concepts to improve safety and maximize operational efficiency of the freeway and interchange to address existing and future needs.
- Evaluate the need for capacity improvements based on the adopted comprehensive land use plans of Central Point and Jackson County.
- Develop an access management plan that provides for safe and acceptable operations on the transportation network, and meets OHP requirements and the access spacing standards in Oregon Administrative Rule (OAR) 734-051.
- Incorporate the Greater Bear Creek Valley Regional Plan into the design and management systems for I-5 Exit 33, including recommended strategies for land use control.

1.5. Planning Process

The IAMP was developed through a series of technical analyses. This document provides a summary of each of the key elements listed below. A second volume provides the detailed analysis and supporting documentation that led to the development of the IAMP.

Five technical advisory committee (TAC) meetings were held for I-5 Exit 33. The meetings included graphic presentations and facilitated discussion to solicit input. The TAC included representation from ODOT, Central Point, Jackson County, the City of Medford, the Rogue Valley Council of Governments, and the Rogue Valley International Airport (see acknowledgements).

In addition to technical review and input, a project focus group (PFG) that included area citizens and business representatives (see acknowledgements), provided input. The PFG met three times during the project.

Lastly, two community open houses were held. The first open house summarized project issues and presented improvement concepts. The second covered the elements of the draft plan.

2. EVALUATION OF BASELINE CONDITIONS

This section summarizes baseline conditions including an overview of the regulatory framework. Land use within the IMSA is presented and potential land use or environmental constraints are identified. Existing transportation system and traffic conditions within the IMSA are evaluated to identify deficiencies. Future traffic operations and safety are then assessed to determine how conditions may worsen.

2.1. Overview of the Regulatory Framework

State and local regulations, policies, and transportation and land use plans provided the legal framework for preparing the IAMP. The language contained within these documents provides guidance to the state and local jurisdictions on how to manage transportation facilities and land uses within the IMSA to protect the interchange function, provide for safe and efficient operations, and minimize the need and expense for making major improvements to the interchange through the year 2038 planning horizon. (For a complete list of the guiding framework, refer to the summary description of all relevant plans and policies included in *Technical Memorandum #1: Definition and Background* in Volume 2 of this IAMP.)

Discussed below are the operational and access management standards. Operational standards and access management standards for roadway facilities are designated by ODOT, Jackson County, and the City of Central Point.

2.1.1. Operational Standards

The Oregon Highway Plan (OHP) establishes several policies that enforce general objectives and approaches for maintaining highway mobility. Of these policies, the Highway Mobility Standards (OHP Policy 1F) establish maximum volume-to-capacity (v/c) ratio[5] performance targets. Policy 1F also specifies that the v/c ratio performance targets be maintained for ODOT facilities through a 20-year planning horizon. For the concept design, the performance targets in the 2012 Highway Design Manual (HDM) were applied.

Both Central Point and Jackson County also have established performance standards. Central Point uses performance standards based on level of service (LOS), a rating system based on how much time traffic is delayed[6] while Jackson County standards are based on v/c ratio. The City TSP acknowledges the County's performance standards but includes the note that "all County roads will at some point come under the City's jurisdiction, and as such, the LOS mobility measure is used" in identifying system deficiencies. The County language also states that "where one or more road approaches is maintained by a city or ODOT, the more restrictive of the County's or other agency's performance standards will be applied."

The freeway falls under state jurisdiction but jurisdictional responsibility along East Pine Street varies by segment. Central Point maintains jurisdiction west of 10th Street and Jackson County maintains jurisdiction east of 10th Street except for the section between the southbound ramps and Peninger Road, which falls under ODOT jurisdiction.

[5] A volume-to-capacity (v/c) ratio compares traffic demand to an estimate of capacity, which is the amount of traffic that an intersection can serve during a fixed period of time. A v/c ratio less than 1.00 indicates that the volume is less than capacity. When the v/c ratio is closer to 0.00, traffic conditions are generally good with little congestion and low delays for most intersection movements. As the v/c ratio approaches 1.00, traffic becomes more congested and unstable with longer delays.

[6] Six level of service (LOS) standards have been established ranging from LOS A where there is little or no delay, to LOS F, where there is delay of more than 50 seconds at unsignalized intersections, or more than 80 seconds at signalized intersections.

The performance targets applicable to the freeway and the IMSA intersections are shown in Table 1.

Table 1. IMSA Performance Targets

Location	Applicable Jurisdictional Performance Targets		
	ODOT[1]	Central Point[2]	Jackson County[3]
I-5 Mainline	V/C <= 0.85	-	-
7th St. & East Pine St.	-	LOS D or better	-
8th St. & East Pine St.	-	LOS D or better	-
9th St. & East Pine St.	-	LOS D or better	-
10th St./Freeman Rd. & East Pine St.[4]	-	LOS D or better	V/C <= 0.95
Jewett School Rd. & East Pine St.[4]		LOS D or better	V/C <= 0.95
I-5 SB Ramps & East Pine St.	V/C <= 0.85		
I-5 NB Ramps & East Pine St.	V/C <= 0.85		
Peninger Rd. & East Pine St.[4]	V/C <= 0.95	LOS D or better	V/C <= 0.95
Hamrick Rd. & East Pine St.		LOS D or better	V/C <= 0.95

Notes:
1. OHP, Policy 1F, Action 1F.1, sixth bullet establishes a "maximum volume to capacity ratio for the ramp terminals of interchange ramps that is the more restrictive volume to capacity ratio for the crossroad, or 0.85" and Table 6, Volume-to-Capacity Ratio Targets for Peak Hour Operating Conditions.
2. City of Central Point Transportation System Plan, 2008-2030, p. 26.
3. Jackson County Transportation System Plan, Ordinance 2005-3, p. 61.
4. Operations at these locations will be compared with multiple agency performance standards since these intersections involve roadways under one or more jurisdictions.

2.1.2. Applicable Access Spacing Standards

The OHP also addresses access management with the most recent revisions adopted in March 2012. More detailed requirements, definitions of access-related actions, and the access spacing standards for state highways are specified in Oregon Administrative Rule (OAR) 734-051 (Division 51): Highway Approaches, Access Control, Spacing Standards, and Medians.

Although East Pine Street is not a state highway, ODOT does have jurisdiction of the section of roadway between the southbound ramp terminal and Peninger Road. The jurisdiction of the roadway in the remainder of the IMSA is split. The City of Central Point has jurisdiction west of 10th Street. Jackson County has jurisdiction between 10th Street and the southbound ramp terminal as well as east of Peninger Road. The County defers to city standards within an Urban Growth Boundary (UGB) if the standard is more restrictive.

The access management standards applicable to this project are summarized in Table 2.

Ideally, a roadway improvement or land development/redevelopment project includes provisions by which access can be made fully compliant with the spacing standards in Table 2. In many instances, access needed for existing development will not allow these standards to be met. When the requirements and standards cannot be met for state highways, progress toward meeting the applicable standards must be demonstrated or a deviation must be justified and approved by the Region Access Management Engineer.

Table 2. Access Spacing Standards

Segment Characteristic	Access Spacing Standard
ODOT – Interchange Ramp Terminals - Fully Developed Urban[1]	
Distance from off-ramp to first approach on the right, right-turn movements only	750 feet[2]
Distance from off-ramp to first intersection where left turns are allowed	1320 feet[2]
Distance from last approach road to the start of the taper for the on-ramp	1320 feet[2]
Distance from last right in/right out approach road to the start of the taper for the on-ramp	990 feet[2]
Other Agency Standards for Public/Private Access Points	
Central Point - Urban Business District (Speed: 25-35 mph)	350 feet[3]
Central Point – Major Arterial (10th Street/Freeman Road to Hamrick Road)	400 feet[4,5]
Central Point – Major Arterial (east of Hamrick Road)	500 feet[4,5]

Notes:
1. Fully Developed Urban Interchange Management Area: Occurs when 85% or more of the parcels along the developable frontage area are developed at urban densities and many have driveways connecting to the crossroad. See definition in the Oregon Highway Plan.
2. Table 8: Minimum Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads, OAR 734-51 Effective June 30, 2014 (Table 17 in the revised OHP.)
3. Table 5.2: Access Management Guidelines, City of Central Point Transportation System Plan.
4. Table 5.1: Access Management Spacing Standards for District Highway and Table 5.2: Access Management Guidelines, City of Central Point Transportation System Plan.
5. Jackson County defers to city standards within an urban growth boundary if the standard is more restrictive.

2.2. Existing Land Use and Zoning

This section summarizes existing land use conditions and potential design constraints found within the IMSA. Figure 2 shows the Comprehensive Plan designations and Figure 3 shows the zoning designations. The information in this section is taken primarily from published documents, maps, GIS data, the Jackson County website, and other Internet websites.

2.2.1. West of Interstate 5

The area west of I-5 includes most of Central Point's historical downtown, which has a tighter street grid network and denser development than the east side of I-5. However, there still are pockets of small parcels of undeveloped lots south of East Pine Street between Freeman Road and I-5. East Pine Street itself is a commercial strip with mixed uses a block behind it, followed by residential development that gets less dense as one moves away from the downtown core. Jewett Elementary School is adjacent to I-5 and the southbound off-ramp of the interchange north of East Pine Street. Areas zoned Central Point Tourist (C4) are located adjacent to the southwest and southeast quadrants of I-5 Exit 33, with a smaller area designated at the northwest quadrant adjacent to the elementary school.

East Pine Street Approaching 8th Street

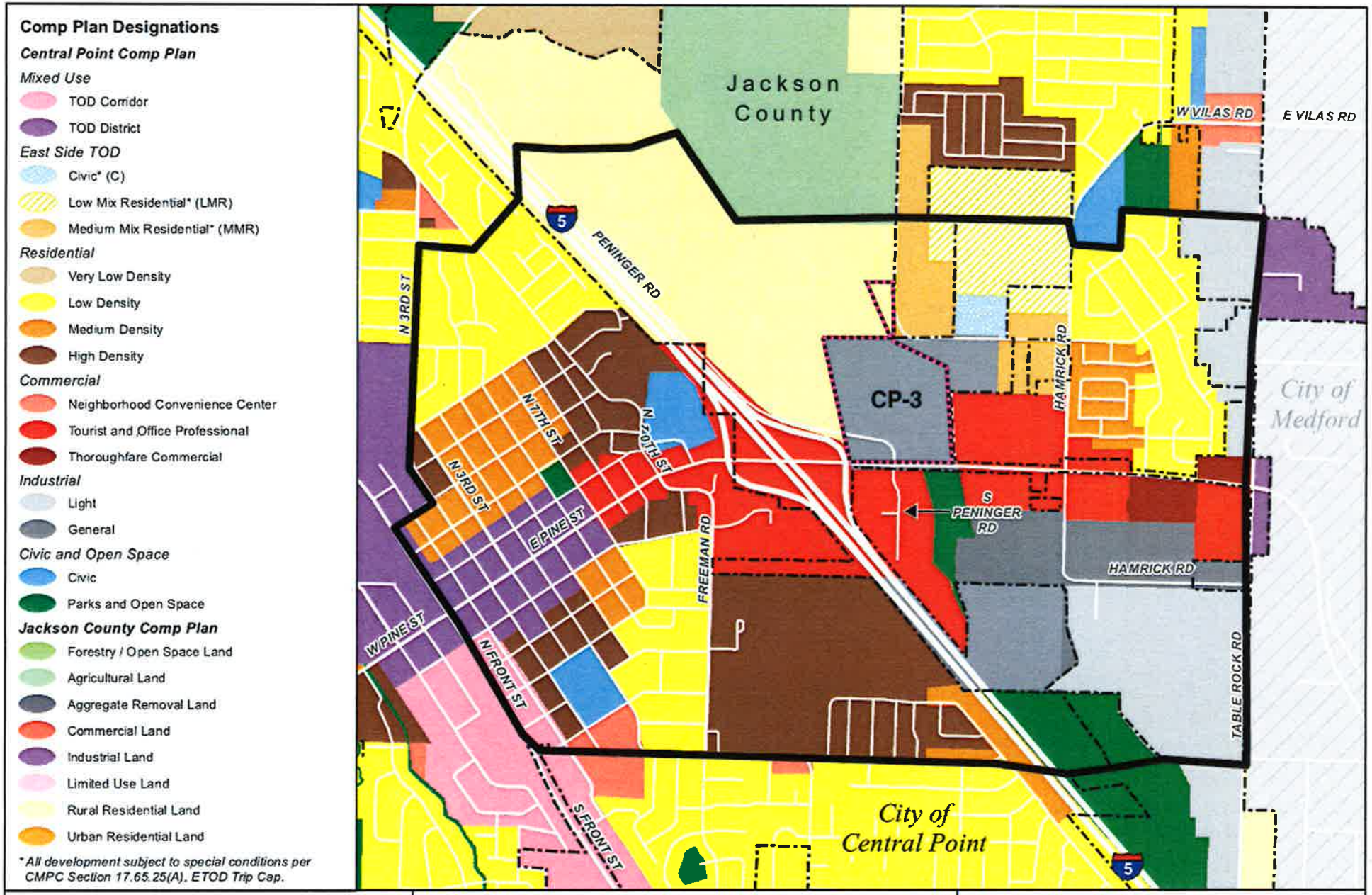


Figure 2

Jackson County and City of Central Point Comprehensive Plans

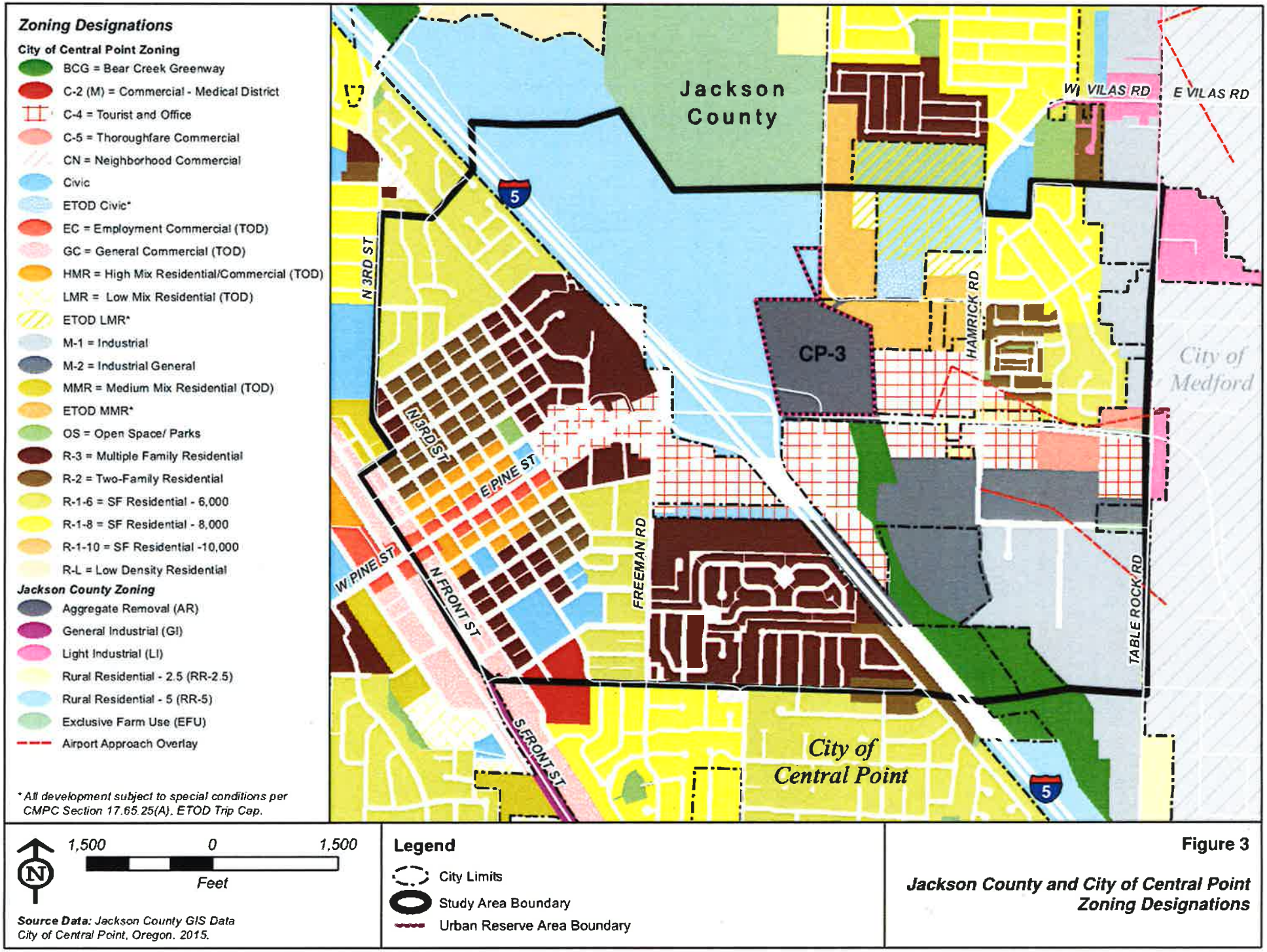


Figure 3

Jackson County and City of Central Point Zoning Designations

2.2.2. East of Interstate 5

In general, the area east of I-5 within the IMSA has tracts of undeveloped and less densely developed land, with pockets of denser development. The Jackson County Exposition Park (fairgrounds) occupies the large parcel of land immediately east of I-5 and north of East Pine Street. The Urban Reserve Area (CP-3) identified in the *Greater Bear Creek Valley Regional Plan* (GBCVRP) lies immediately north of East Pine Street and adjacent to the fairgrounds. Currently designated as primarily Aggregate Removal (AR), potential land uses for CP-3 include Open Space and Employment.

Much of East Pine Street is bordered by Central Point Tourist and Office (C4). The C4 use provides tourist and entertainment facilities to serve residents and tourists passing through the area. Adjacent to the Interchange south of East Pine Street are commercial uses that support the traveling public, such as a truck stop, gas stations and hotels with a few undeveloped parcels intermixed.

Additional uses in the area include the Transit Oriented Development (TOD) north of East Pine Street. Residential lands are located north of East Pine Street and Industrial lands are to the south. The Bear Creek Greenway has its own zoning designation (BDG) in Central Point.

2.2.3. Potential Design Constraints

Within the City of Central Point, transportation improvements within existing right-of-way are permitted outright in any district. Additional standards may apply in the base district if projects include parcels outside of existing right-of-way. Furthermore, transportation projects may need to meet additional permitting requirements other than those associated with the base district zoning such as the Bear Creek Greenway Overlay and Historic Preservation Overlay. Within the

Bear Creek Greenway Connection to East Pine Street

jurisdiction of Jackson County, permitting and design requirements for transportation improvements vary depending on the type of improvement and zoning designation. Overlays with their own criteria and potential constraints in Jackson County include the Bear Creek Greenway, Historic Resources, Archaeological Sites, Floodplain, and Airport Approach and Airport Concern Overlays.

2.3. Environmental, Community, and Cultural Resources

Research and mapping of environmental features and community resources within the IMSA were used to identify known issues and those that may pose potential challenges or barriers to transportation improvements. The information gathered was taken primarily from published documents and maps, GIS data, and conversations with appropriate professional contacts. The analysis is limited to "visual windshield validation." Further resources may exist within the IMSA that are not yet documented or are not visually apparent. For more detailed information regarding this research, refer to *Technical Memorandum #2: Existing Conditions Analysis* in Volume 2 of this IAMP.

Environmental features researched within the IMSA include:

- Natural Resources
- FEMA Floodplain/Floodway
- Wetlands and Waters
- Threatened and Endangered Species
- Air Quality
- Hazardous Materials

Community and cultural resources identified within the IMSA include:

- Historic and Archaeological Resources
- Section 4(f) Resources

2.3.1. Potential Design Constraints

Depending on the location of the planned improvement, final design, and construction details, there will be specific permits, regulatory requirements, or authorizations required prior to construction of the project. Potential topographical and regulatory design restraints are associated with the Bear Creek and Mingus Creek floodplains and wetlands and any other jurisdictional waters within the IMSA. Additional design constraints not covered in this IAMP could include the location of hazardous material sites, fish passage requirements at stream crossings, and storm water treatment requirements.

2.4. Transportation System Inventory

The transportation system inventory examines the roadways, access points, and bicycle and pedestrian facilities along East Pine Street within the IMSA. (For more detailed system inventory information, refer to *Technical Memorandum #2: Existing Conditions Analysis* in Volume 2.)

2.4.1. Roadway Inventory

I-5 Exit 33 is an urban interchange that currently functions as the main access to the City of Central Point in Jackson County as well as providing intermodal access to the Rogue Valley International-Medford Airport and developing industrial areas. The interchange ramps connect with East Pine Street, the primary east-west route through Central Point. Table 3 presents an inventory of roadways and their general characteristics within the IMSA.

The freeway, the interchange ramps, and the portion of East Pine Street east of the interchange are all part of the National Highway System (NHS). The freeway and its ramps are part of the interstate system while East Pine Street (Biddle Road east of Hamrick Road) is classified as an intermodal connector[7] from I-5 eastward and southward to OR Highway 62 (OR 62).

I-5 Exit 33 Northbound Ramp Terminal

As noted earlier, jurisdictional responsibility along East Pine Street varies by segment. Central Point maintains jurisdiction west of 10th Street. Jackson County maintains jurisdiction east of 10th Street except for the section between the southbound ramps and Peninger Road, which falls under ODOT jurisdiction.

The interchange itself has a standard diamond layout with approximately 1,200 feet between the northbound and southbound ramp terminals. The

[7] Intermodal Connectors provide access between major intermodal facilities and the other four subsystems making up the National Highway System. http://www.fhwa.dot.gov/planning/nhs/

bridge over I-5 is five lanes wide with a sidewalk on the north side and bike lanes on both sides. Both the northbound and southbound ramp terminals have multi-lane approaches to East Pine Street.

The other roadways within the IMSA are largely urban in nature, with sidewalks but no marked bike lanes west of I-5. East of I-5, sidewalks are sparse, and if present, are located on the south side of East Pine Street.

East Pine Street at Peninger Road Looking Northwestward

Table 3. IAMP 33 Roadway Inventory

Roadway/ Highway Name	Jurisdiction	ODOT/Federal Functional Classification	City/County Functional Classification	Posted Speed (mph)	No. of Lanes
Interstate 5					
Mainline	ODOT	Interstate, NHS, FR, TR	-	65	4
I-5 Exit 33 Ramps	ODOT	Interstate, NHS, FR, TR	-	-	1-2
East Pine St.[1]					
West of 10th St.	Central Point	Minor Arterial	Minor Arterial	25-35	4-5
10th St. - SB Ramps	Jackson County	Minor Arterial	Principal Arterial	25	5
SB Ramps - Peninger Rd.	ODOT	Minor Arterial, NHS Intermodal Connector	Principal Arterial	35	5
Peninger Rd. to East	Jackson County	Minor Arterial, NHS Intermodal Connector	Intermodal Connector	35-45	5
Intersecting Roadway					
7th St.	Central Point	Local	Local	25[2]	2
8th St.	Central Point	Local	Local	25[2]	2
9th St.	Central Point	Local	Local	25[2]	2
10th St.	Central Point	Minor Arterial	Minor Arterial	25[2]	2
Freeman Rd.	Central Point	Minor Arterial	Minor Arterial	35	2
Jewett School Rd.	Central Point	Local	Local	25[2]	2
Peninger Rd to north	Jackson County	Urban Collector/ Rural Major Collector	Urban Collector/ Rural Major Collector	45	2
Peninger Rd to south	Central Point	Local	Local	25[2]	2
Hamrick Rd to north	Jackson County	Minor Arterial	Minor Arterial	40	3
Hamrick Rd to south	Jackson County	Local	Collector	25[2]	2

Acronyms: NHS: National Highway System; FR: State Freight Route; TR: Federally Designated Truck Route

Notes:

1. The state functional classification maps denote East Pine Street as under state jurisdiction between Peninger Road and the southbound ramp terminal, and under county jurisdiction outside of the ramp terminals.
2. No speed posted on these roadway sections; speed in table reflects default speeds based on functional classification.

2.4.2. Existing Access Inventory

Access inventory data for East Pine Street from 7th Street to Table Rock Road was obtained from aerial photography and GIS data and confirmed with a site visit. This data includes public street intersections and other road approaches to East Pine Street. Aerial mapping depicting access locations is shown in Figure 4.

East Pine Street has 30 access points that connect to the north side and 40 that connect to the south side. When compared to the applicable spacing standards, few of the driveway accesses meet current access spacing standards based on existing average annual daily traffic (AADT) volumes, roadway jurisdiction, and speeds. There are 30 access points connecting to East Pine Street within a quarter mile of the northbound and southbound ramp terminals. None of these access points meet the 1,320 feet access spacing standard from an interchange set forth by ODOT.

Accesses along East Pine Street East of I-5

Since East Pine Street is not a state highway, the Central Point standards also apply within the IMSA. None of the accesses west of the interchange meet the City access spacing standards identified in their TSP. East of the interchange, only a few accesses on the north side of the street meet the city access spacing standard near the interchange. However, access spacing has been more regulated on East Pine Street east of Bear Creek as newer developments have come in.

While ODOT requires approach permits for approaches to highways under its jurisdiction, many counties and cities do not. East Pine Street is not a highway and does not have specific road approach permit requirements. Within the last decade, during construction of improvements on East Pine Street/Biddle Road, ODOT and Jackson County discussed implementing complete access control between Freeman Road and Table Rock Road; however, no road approach permits were issued at that time. East Pine Street west of 10th Street/Freeman Road is a city street and does not require permits for road approaches.

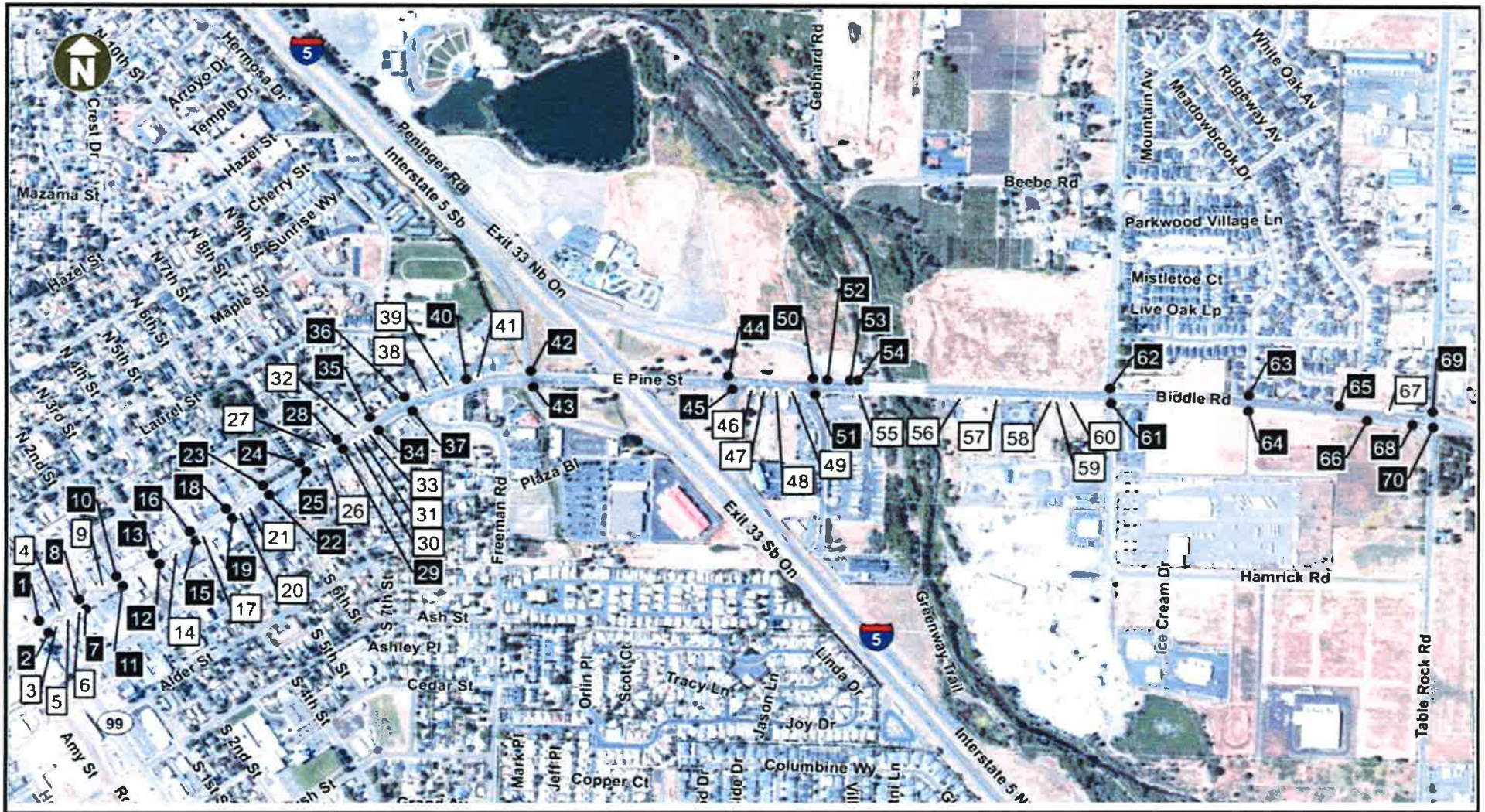
2.4.3. Pedestrian Facilities Inventory

The pedestrian network is fully developed in the areas west of the interchange and sidewalks are also present on some of the roadways east of the interchange. The sidewalks are generally 5 feet wide and include ramps on the corners.

Along East Pine Street, sidewalks are located on both sides through most of the IMSA with a few exceptions:

- Between I-5 Ramp Terminals (Freeway Overpass) – Sidewalk on north side only
- Peninger Road to west of Bear Creek Bridge – Sidewalks on south side only
- East of Bear Creek Bridge to Hamrick Road – No sidewalks on either side

Generally, the properties adjacent to East Pine Street without sidewalks are undeveloped. However, the Bear Creek Plaza development south of East Pine Street and east of Bear Creek does not include curbs and sidewalks.



I-5 Exit 33 (Central Point) IAMP

Legend

- Private Access
- Public Access
- # Private Access ID
- # Public Access ID

Source Data: ESRI, Jackson County, Microsoft (2001-12)

Figure 4

Existing Access Inventory

Sidewalk and Shoulder on North Side of I-5 Overpass

The freeway overpass does not include sidewalks on the south side of the roadway. When the bridge over the freeway was widened from two lanes to five lanes, a sidewalk was constructed on the north side of the expanded structure but no sidewalk was added on the south side.

Crosswalks are striped at most of the downtown intersections and at all of the signalized intersections, but not across all of the intersection approaches. The inventory for the East Pine Street intersections includes crosswalks on the following approaches:

- 7th Street: North, South, East
- 8th Street: North, South, East
- 9th Street: North, South, West
- 10th Street: All (Signalized)
- I-5 Southbound Ramps: North, West (Signalized)
- I-5 Northbound Ramps: North, East (Signalized)
- Peninger Road: All (Signalized)
- Hamrick Road: All (Signalized)

The Bear Creek Greenway Trail crosses under East Pine Street just west of the Bear Creek Bridge. Connections from the trail to East Pine Street are located on both the north and south sides of the roadway. The north trail connection joins East Pine Street where there are currently no existing sidewalks. The south trail connection joins an existing sidewalk on the south side of the roadway.

2.4.4. Bicycle Facilities Inventory

Bike facilities are present on East Pine Street from east of 8th Street through Hamrick Road. In downtown Central Point and across the freeway overpass to Peninger Road, the bike facilities are striped as a shoulder rather than a bike lane (striping is too narrow and shoulder does not have bicycle stencils). East of Peninger Road, bike lanes are striped with stencils, even on sections where no curbs are present.

The bike facilities connect to the Bear Creek Greenway Trail just west of the Bear Creek Bridge. A curb cut allows bicycle access across the sidewalk to connect to the trail on the south side of East Pine Street. There is no curb or sidewalk on the north side, so the trail currently connects directly to the bike lane.

One existing safety concern focuses on the block between Freeman Road and the I-5 southbound on-ramp. The eastbound shoulder facility on East Pine Street is located on the outside of the vehicular travel lanes and adjacent to the curb, as is typical for most bike lanes. However, east of Freeman Road, the outermost travel lane becomes a right-turn lane and all traffic must turn right onto the I-5 southbound on-ramp. Bicyclists trying to travel eastbound along East Pine Street become trapped by the right-turn lane and must cross a stream of right-turning vehicles to continue through the intersection.

Shoulder on East Pine Street at I-5 Southbound Ramp

2.5. Existing Operations and Safety

The assessment of existing traffic conditions includes development of existing traffic volumes, traffic operations evaluation, and a review of historical crash patterns. For more detailed data and evaluation results, refer to *Technical Memorandum #2: Existing Conditions Analysis* in Volume 2 of this IAMP.

2.5.1. Volume Development

Traffic counts were collected in the year 2010 and adjusted to correspond to traffic volumes that are seen in the peak months of the year (July/August). After peak hour count data was seasonally adjusted, volumes were balanced to achieve a uniform dataset for analysis.

In addition to examining the PM peak hour for the nine intersections along East Pine Street, the AM peak hour is examined at the two I-5 ramp terminal intersections. These traffic volumes and peak hour operations are illustrated in Figure 5.

2.5.2. Existing Intersection Operations

Table 4 summarizes the analysis results for all intersections within the IMSA. Only one intersection has a traffic movement showing that does not meet the city level of service standard. The southbound approach has a relatively high volume of left turns from southbound 7th Street to eastbound East Pine Street. During the busiest time of day, vehicles may sometimes experience some delay making this turn movement.

Table 4. Existing (Year 2010) Peak Hour Traffic Operations

Intersection	Critical Movement[1]	V/C Ratio[2]	LOS[2]	Performance Target[3]
AM PEAK HOUR				
I-5 SB Ramps & East Pine St (Signalized)	Overall	0.69	B	0.85
I-5 NB Ramps & East Pine St (Signalized)	Overall	0.41	A	0.85
PM PEAK HOUR				
7th St. & East Pine St.	SB L/T/R	0.48	E	LOS D
8th St. & East Pine St.	SB L/T/R	0.09	D	LOS D
9th St. & East Pine St.	NB L/T/R	0.12	B	LOS D
10th St/Freeman Rd & East Pine St (Signalized)	Overall	0.77	C	0.95/LOS D
Jewett School Rd & East Pine St	SB L/T/R	0.12	C	0.95/LOS D
I-5 SB Ramps & East Pine St	Overall	0.51	A	0.85
I-5 NB Ramps & East Pine St	Overall	0.53	B	0.85
Peninger Rd & East Pine St (Signalized)	Overall	0.71	B	0.95/LOS D
Hamrick Rd & East Pine St (Signalized)	Overall	0.75	C	0.95/LOS D

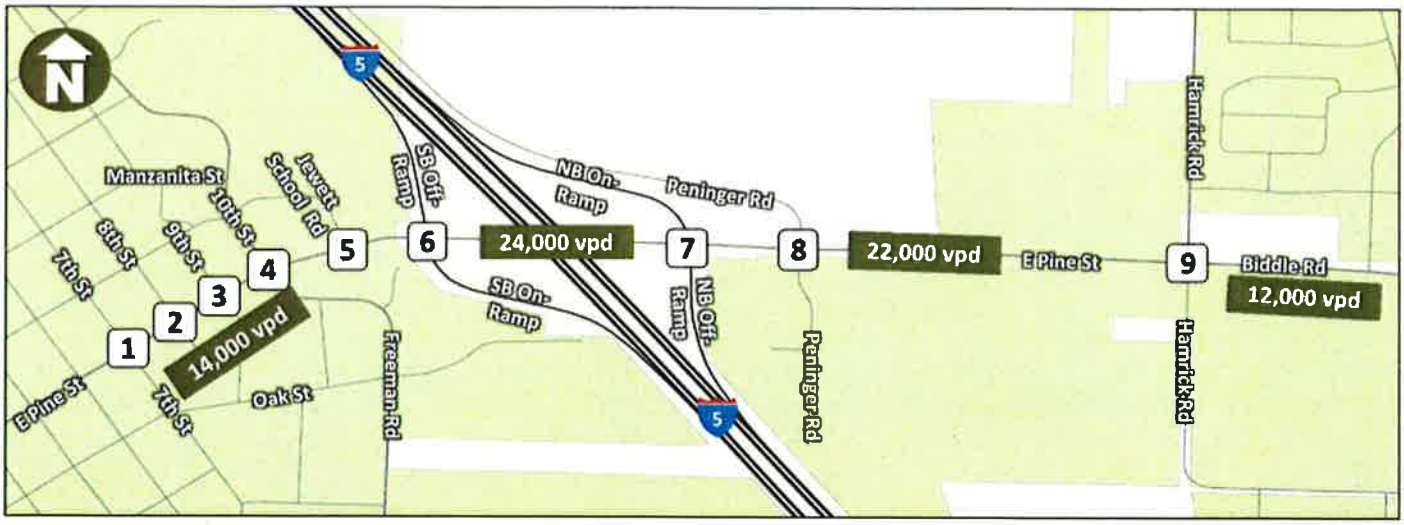
Acronyms: NB = northbound, SB = southbound, EB = eastbound, WB = westbound, L = left-turn movement, T = through movement, R = right-turn movement. Two or more travel movements permitted in one lane group are indicated with a slash.

Notes:

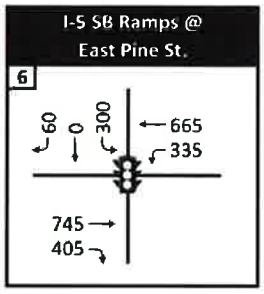
1. At signalized intersections, the critical movement is represented by the overall intersection operations. At unsignalized intersections, the critical movement was identified as the stopped movement with the worst v/c ratio.
2. The v/c ratios and levels of service (LOS) are calculated from the Synchro analysis, which cannot account for the influence of signalized intersections on unsignalized intersection operations or reflect the effects of queue spillover.
3. Performance targets are based on the Oregon Highway Plan and the Jackson County and Central Point Transportation System Plans.

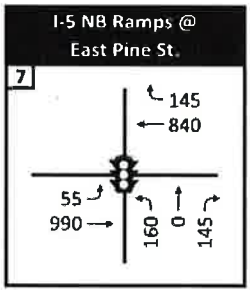
Shaded results indicate where performance targets are not met.

Source: Synchro HCM Intersection Analysis Report and SimTraffic delay and queuing reports.



AM PEAK HOUR





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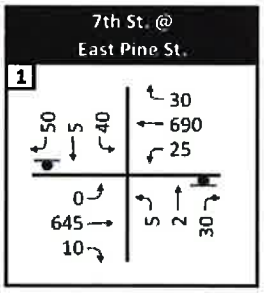
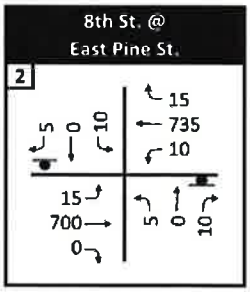
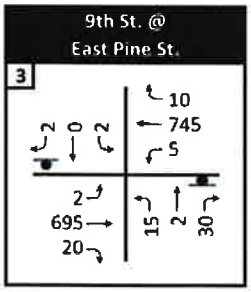
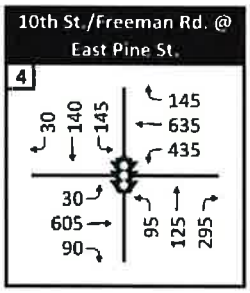
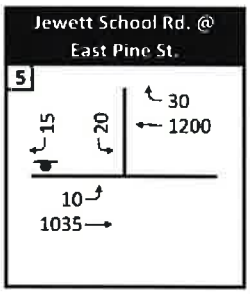


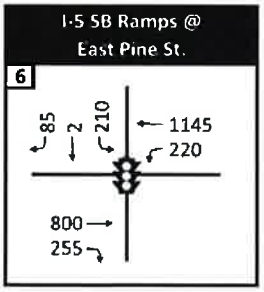


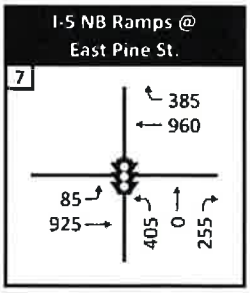


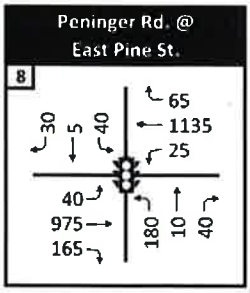


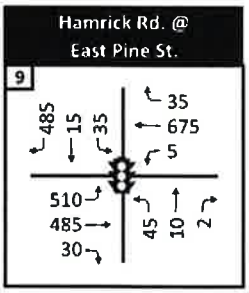


PM PEAK HOUR









Legend

- Turning Movement
- ## Traffic Volume
- Traffic Signal
- STOP Sign
- **##,### vpd** Average Daily Traffic Volume (vehicles per day)

Figure 5

Existing (Year 2010) Traffic Volumes

2.5.3. Merge and Diverge Operations

It is also important to evaluate how the interchange ramps interact with the mainline highway traffic on I-5 through an analysis of the points where traffic enters or merges onto the highway and where it exits or diverges from the highway. These analyses were conducted in accordance with ODOT procedures to determine v/c ratio performance. The results of the analysis are summarized in Table 5.

The merge and diverge analyses show that the freeway and the merge and diverge points associated with the I-5 Exit 33 ramps are currently operating well below the performance target of 0.85 during both the AM and PM peak hours.

Table 5. Existing (Year 2010) Peak Hour Freeway Operations

Direction/Location	V/C Ratio[1] AM Peak Hour	V/C Ratio[1] PM Peak Hour
I-5 Northbound		
Mainline South of Exit 33	0.19	0.45
Diverge: Exit 33 Northbound Off-Ramp	0.15	0.33
Mainline between Off and On-Ramps	0.13	0.31
Merge: Exit 33 Northbound On-Ramp	0.30	0.41
Mainline North of Exit 33	0.30	0.41
I-5 Southbound		
Mainline North of Exit 33	0.33	0.26
Diverge: Exit 33 Southbound Off-Ramp	0.17	0.14
Mainline between Off and On-Ramps	0.25	0.19
Merge: Exit 33 Southbound On-Ramp	0.42	0.30
Mainline South of Exit 33	0.41	0.30

Notes:
1. The v/c ratios for the merge/diverge analysis are calculated based on the methodologies outlined in ODOT's Analysis Procedures Manual.

2.5.4. Crash History Analysis

A crash history analysis was conducted to determine whether any significant, documented safety issues exist within the IMSA. The ODOT database (years 2006 through 2008) has 127 crashes within the IMSA including 22 crashes on mainline I-5. Of these crashes, almost half resulted in an injury although there were no fatal collisions.

Two intersections had crash rates near 1.0; thus, they were examined more closely. The 10th Street/Freeman Road intersection with East Pine Street had an intersection crash rate estimated at 0.96. Most of the reported crashes were rear end collisions associated with the northbound approach of Freeman Road at East Pine Street and may be associated with the sharp roadway curvature that begins just 100 feet southeast of East Pine Street. The I-5 northbound ramps had an intersection crash rate of 0.91. About half of the collisions involved vehicles turning to or from the freeway ramps but the other half involved two vehicles traveling straight on East Pine Street.

There were no segments within the IMSA identified in the top 10 percent of the state's 2012 Safety Priority Index System (SPIS)[8] database.

2.6. Future Baseline Conditions

The analysis of future baseline conditions examines long-term operational and safety concerns of the transportation system. (Detailed discussions of future conditions can be found in *Technical Memorandum #5: Preferred Alternative* in Volume 2 of this IAMP.)

[8] The SPIS is a method used in Oregon to identify safety problem areas along state highways. Highways are evaluated in approximately one-tenth mile increments (often grouped into larger segments). Each year these segments are ranked by assigning a SPIS score based on the frequency and severity crashes observed, while taking traffic volume into account. When a segment is ranked in the top 10% of the index, a crash analysis is typically warranted and corrective actions are considered.

2.6.1. Future Land Use

The future baseline analysis examines the long-term impact of fully developing vacant lands in Central Point's Urban Growth Boundary (UGB). This land use forecast also addresses the Urban Reserve Area (CP-3) identified in the *Greater Bear Creek Valley Regional Plan* (GBCVRP) and future fairgrounds expansion.

The land use forecast was developed assuming that available buildable land within the IMSA is fully built to the maximum allowable density designated in the Central Point and Jackson County Comprehensive Plans. For the purposes of this IAMP, the build out analysis focused on the lands east of I-5 that have most of the buildable acreage.

The land use forecast for the IMSA was brought into the regional travel demand model for the RVMPO which has a forecast year of 2038.

Most Buildable Lands Lie East of I-5

2.6.2. Future Transportation Network

The network used in the forecasts for the I-5 Exit 33 IAMP is the financially-constrained Regional Transportation Plan 2013 – 2038 (RTP) network. This network includes projects identified as reasonably likely to be constructed during the planning horizon (designated as Tier 1 projects).

A number of Tier 1 projects are identified in the Central Point TSP and these were reviewed to determine if adjustments to the model network were needed. While a detailed operational analysis would be affected by these projects, the regional forecasting model is not detailed enough to account for these types of intersection capacity and center turn lane changes.

The TSP includes an analysis assumption that Gebhard Road would be extended from Beebe Road to a signalized intersection East Pine Street approximately 700 feet west of Hamrick Road. Because this project is not included in the TSP Tier 1 project list, it was not assumed in the future transportation network. A subsequent Traffic Impact Analysis was performed for the Gebhard Road Intersection (See Volume 2) that indicates the intersection can be accommodated on East Pine Street without adverse impacts to the interchange.

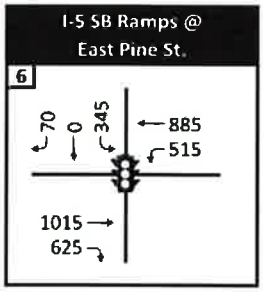
2.6.3. Future Peak Hour Traffic Volumes

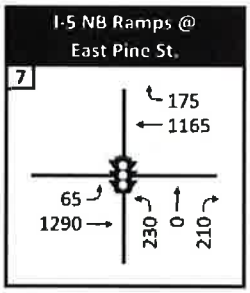
Future baseline traffic forecasts were developed based on the land use and transportation network assumptions outlined above. The year 2038 volumes are shown in Figure 6.

2.6.4. Future Intersection Operations

The future baseline traffic analysis results are summarized in Table 6.

AM PEAK HOUR





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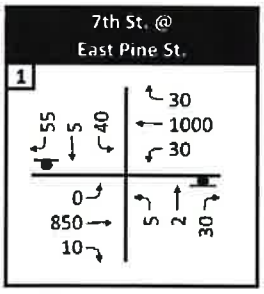

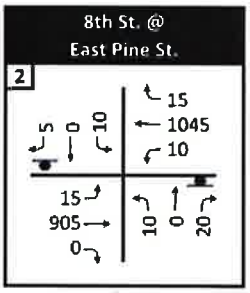

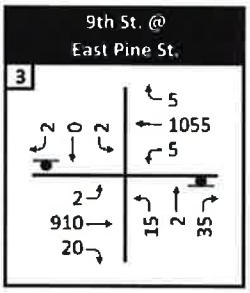

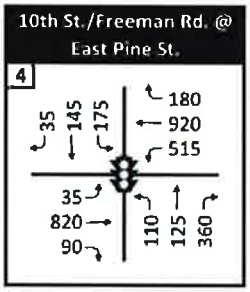

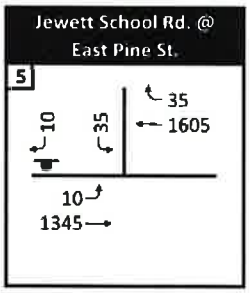

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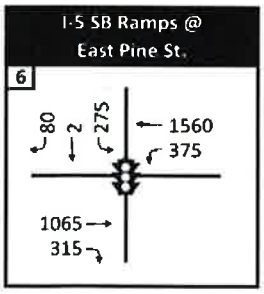
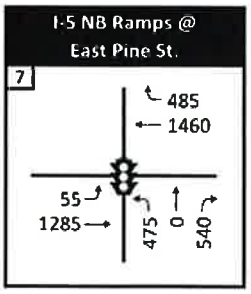
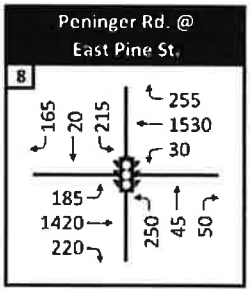
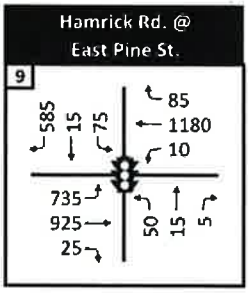








I-5 Exit 33 (Central Point) IAMP

Legend

- Turning Movement
- ## Traffic Volume
- ##,### vpd Average Daily Traffic Volume (vehicles per day)
- Traffic Signal
- STOP Sign

Figure 6

Future (Year 2038) Traffic Volumes

Table 6. Future (Year 2038) Peak Hour Traffic Operations

Intersection	Critical Movement[1]	V/C Ratio[2]	LOS[2]	Queuing Issues[3]	Performance Target[4]
AM Peak Hour					
I-5 SB Ramps & East Pine St (Signalized)	Overall	0.94	C	EB, WB, SB	0.85
I-5 NB Ramps & East Pine St (Signalized)	Overall	0.64	B	None	0.85
PM Peak Hour					
7th St & East Pine St	SB L/T/R	0.83	F	SB L/T/R	LOS D
8th St & East Pine St	SB L/T/R	0.18	F	SB L/T/R	LOS D
9th St & East Pine St	NB L/T/R	0.16	C	None	LOS D
10th St/Freeman Rd & East Pine St (Signalized)	Overall	0.83	D	All approaches	0.95/LOS D
Jewett School Rd & East Pine St	SB L/T/R	0.29	D	EB L, WB	0.95/LOS D
I-5 SB Ramps & East Pine St (Signalized)	Overall	0.79	B	WB L, SB	0.85
I-5 NB Ramps & East Pine S (Signalized)	Overall	0.98	C	All approaches	0.85
Peninger Rd & East Pine S (Signalized)	Overall	1.04	D	All approaches	0.95/LOS D
Hamrick Rd & East Pine S (Signalized)	Overall	1.09	E	All approaches	0.95/LOS D

Acronyms: NB = northbound, SB = southbound, EB = eastbound, WB = westbound, L = left-turn movement, T = through movement, R = right-turn movement. Two or more travel movements permitted in one lane group are indicated with a slash.

Notes:

1. At signalized intersections, the critical movement is represented by the overall intersection operations. At unsignalized intersections, the critical movement was identified as the stopped movement with the worst v/c ratio.
2. The v/c ratios and levels of service (LOS) are calculated from the Synchro macrosimulation analysis, which cannot account for the influence of signalized intersections on unsignalized intersection operations or reflect the effects of queue spillover.
3. Queuing issues were identified through the SimTraffic microsimulation analysis.
4. Performance targets are based on the Oregon Highway Plan and the Jackson County and Central Point Transportation System Plans.

Shaded results indicate where performance targets are not met.

Source: Synchro HCM Intersection Analysis Report and SimTraffic microsimulation

The analysis results show that, under year 2038 future baseline conditions, six of the intersections within the IMSA are expected to exceed operational standards: five during the PM peak hour and one during the AM peak hour. Some delays and queuing on are expected on 7th Street at its intersection with East Pine Street. Although 8th Street also shows LOS conditions, more detailed traffic simulations show minor delays and short queues. The I-5 Southbound Ramps would exceed the OHP performance target in the AM peak hour with queuing expected on all approaches. The I-5 Northbound Ramps would be over capacity for the PM peak hour with queuing on all approaches. Both the Peninger Road and Hamrick Road intersections would have demand greater than capacity and long queuing on several approaches.

While queuing issues would be present at many of the intersections within the IMSA, queuing is a particular concern on the southbound (AM peak) and northbound (PM peak) off-ramps. This is a significant safety concern as traffic exiting the freeway would have insufficient distance to slow and come to a stop on the ramp itself. The queues could also impact freeway traffic flow as drivers have to slow in the mainline travel lanes in anticipation of stopping on the ramp.

2.6.1. Merge and Diverge Operations

The future baseline operations of the interchange ramp interaction with the mainline highway traffic were also evaluated. The results of the analyses are summarized in Table 7.

The merge and diverge analyses for both the future design hour (PM peak hour) and the AM peak hour show that the freeway and the merge and diverge points associated with the I-5 Exit 33 ramps are expected operate below the performance target of 0.85.

I-5 Looking at Southbound Ramp Diverge

Table 7. Future (Year 2038) Peak Hour Freeway Operations

Direction/Location	V/C Ratio[1]	
	AM Peak Hour	PM Peak Hour
I-5 Northbound		
Mainline South of Exit 33	0.26	0.64
Diverge: Exit 33 Northbound Off-Ramp	0.22	0.51
Mainline between Off and On-Ramps	0.17	0.43
Merge: Exit 33 Northbound On-Ramp	0.40	0.55
Mainline North of Exit 33	0.40	0.54
I-5 Southbound		
Mainline North of Exit 33	0.44	0.32
Diverge: Exit 33 Southbound Off-Ramp	0.20	0.17
Mainline between Off and On-Ramps	0.35	0.25
Merge: Exit 33 Southbound On-Ramp	0.61	0.40
Mainline South of Exit 33	0.59	0.40

Notes:
1. The v/c ratios for the merge/diverge analysis are calculated based on the methodologies outlined in ODOT's Analysis Procedures Manual.

3. PLANNED IMPROVEMENTS

This section presents the improvements to address deficiencies within the IMSA as identified through existing and future baseline analysis. The improvements were developed to meet the identified goals and objectives of this plan and address issues identified in the problem statement. (Detailed discussions of concept development can be found in *Technical Memorandum #4: Alternatives Analysis* and *Technical Memorandum #5: Preferred Alternative* in Volume 2 of this IAMP.)

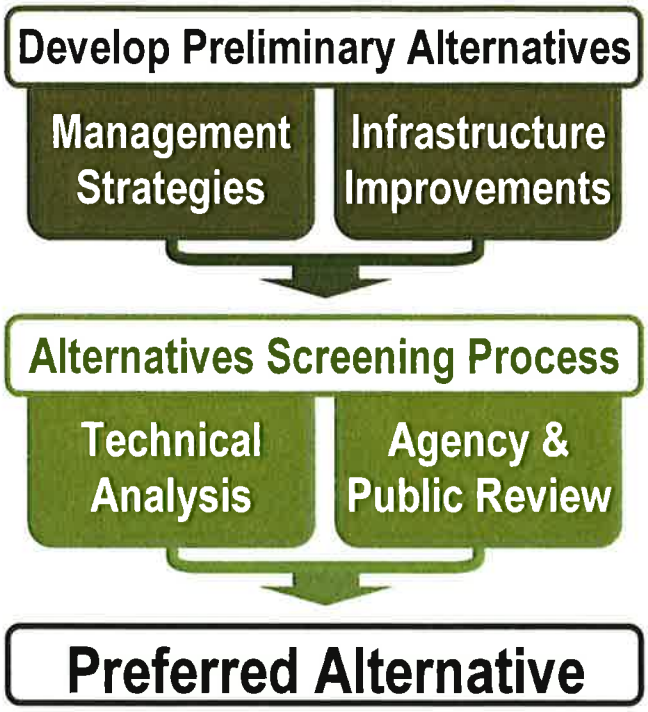
3.1. Alternatives Evaluation Process

After identifying existing and future deficiencies, a list of potential solutions was created. The alternatives analysis started with a foundation of management strategies that would maximize the function of the existing transportation facilities. It then identified improvements that would fill in any gaps in the existing infrastructure. Lastly, it identified potential projects for addressing the long-term operational and safety deficiencies that were identified for some intersections.

The technical analysis included an evaluation of traffic operations at key intersections to help determine how well each recommended concept would address deficiencies. In addition, right-of-way needs, resource impacts, and preliminary-level cost opinions were prepared to compare the alternatives to each other.

Alternatives were presented to both the Technical Advisory Committee and the Project Focus Group and shared at a community open house. Any new projects not presented to these committees will be vetted through the City's Citizen Advisory Committee and Planning Commission process.

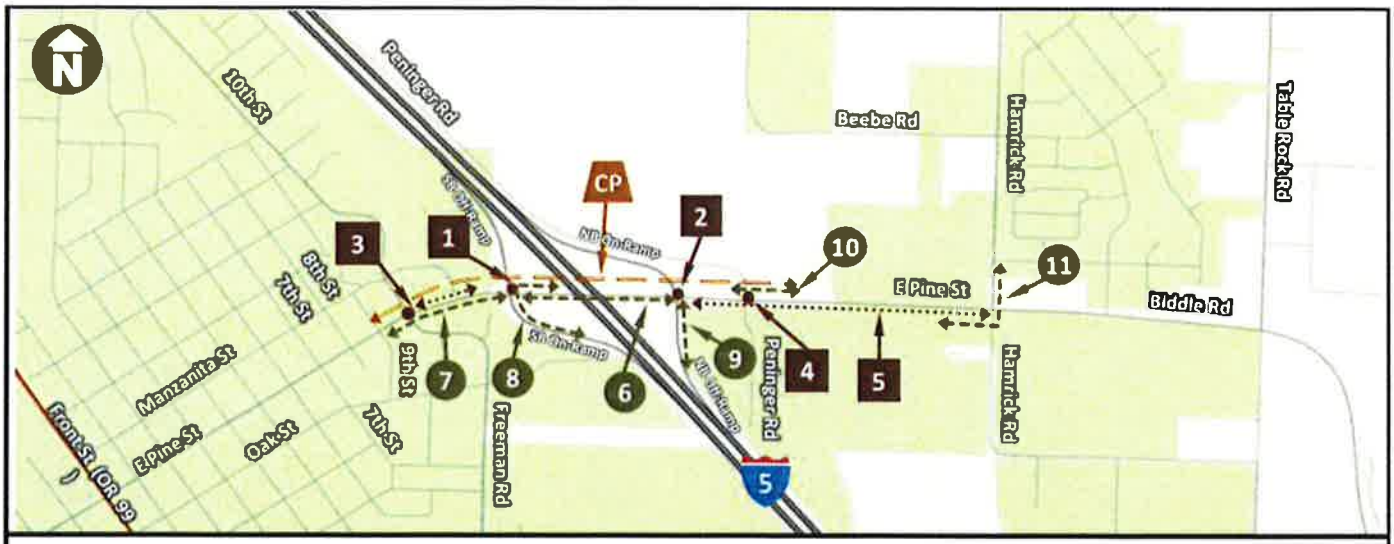
The committee and public feedback was considered with the technical findings and recommendations were made. Finally, the preferred alternative was developed by combining the recommended concepts into a unified plan for the interchange area.



3.2. IAMP Improvements

The IAMP consists of three new projects, new transportation system management measures (TSM), and several of the Central Point TSP projects within the IMSA. Figure 7 illustrates the locations of the IAMP improvement projects along with a proposed project that the City of Central Point is actively considering on East Pine Street. Table 8 provides descriptions along with benefits and considerations of the IAMP projects as well as recommendation for agency priority and triggers for implementation.

Project sheets illustrating the improvements are included in Section 3.3. These sheets include more detailed information about features and considerations for each project.



1 **I-5 Southbound Ramp Terminal/East Pine Street TSM – Signal Timing Modifications**: *Maintain traffic signal timing to safely manage queues on the SB off-ramp (Ongoing)*

2 **I-5 Northbound Ramp Terminal/East Pine Street TSM – Signal Timing Modifications**: *Maintain traffic signal timing to safely manage queues on the NB off-ramp (Ongoing)*

3 **10th Street/Freeman Road/East Pine Street TSM – Signal Timing Modifications and Queue Storage**: *Maintain signal progression, change signal phasing, extend westbound left-turn lane striping on East Pine Street to provide more queue storage, consider access restrictions to improve safety (Ongoing)*

4 **Peninger Road/East Pine Street TSM – Signal Timing Modifications**: *Maintain signal progression to avoid queuing conflict that affects I-5 NB Ramp Terminal, and change signal phasing (Ongoing)*

5 **East Pine Street TSM – Signal Timing Modifications**: *Maintain signal progression, particularly in the eastbound direction, to avoid queuing that affects I-5 NB ramp terminal (Ongoing)*

6 **South Sidewalk between Ramp Terminals**: *Add a sidewalk on the south side of East Pine Street between the northbound and southbound ramp terminals (High to Medium Priority)*

7 **Bike Lane Improvements**: *Restripe eastbound travel lanes between 9th Street and the I-5 southbound ramp to improve bike lane transitions (High Priority)*

8 **I-5 Southbound On-Ramp – Dual Westbound Left-Turn Lanes**: *Add a second westbound left-turn lane on East Pine Street onto the I-5 southbound on-ramp and a second southbound receiving lane on the I-5 southbound on-ramp (Medium to Low Priority)*

9 **I-5 Northbound Ramp Terminal – Dual Right-Turn Lanes**: *Widen the I-5 northbound off-ramp to add a second right-turn lane at the northbound approach to East Pine Street (Medium to Low Priority)*

10 **Peninger Road/East Pine Street Intersection Improvements**: *Implement Central Point TSP Tier 2 Project #236 as revised – Widen East Pine Street to accommodate a third westbound through travel lane, maintain bike lanes, and add sidewalks where necessary (Medium to Low Priority)*

11 **Hamrick Road/East Pine Street Intersection Improvements**: *Implement Central Point TSP Tier 1 Project #216 – Widen west and north approaches to add a dual eastbound left-turn lane and second northbound receiving lane (Medium to Low Priority)*

CP **Proposed City Shared Use Path Project**: *Construct a shared use path on the north side of East Pine Street from 9th Street to the Bear Creek Greenway (Priority established by City)*

I-5 Exit 33 (Central Point) IAMP

Legend

- Transportation System Management Improvements
- Infrastructure Improvements
- Central Point Improvements

Figure 7

Locations of IAMP Improvements

Table 8. Summary of IAMP Improvements

	Improvement	Description	Implementation: Priority	Implementation: Trigger	Mobility	Safety	Multimodal	Estimated Cost[1]	State	Local
TRANSPORTATION SYSTEM MANAGEMENT MEASURES TO MAINTAIN SAFE AND EFFICIENT OPERATIONS										
1	I-5 SB Ramp Terminal at East Pine St TSM	▪ Monitor queuing on the SB off-ramp and maintain traffic signal timing to safely manage queues on the ramp.	Ongoing	▪ Queuing on the off-ramp	✓	✓		<$5,000	✓	✓
2	I-5 NB Ramp Terminal at East Pine St TSM	▪ Monitor queuing on the NB off-ramp and maintain traffic signal timing to safely manage queues on the ramp	Ongoing	▪ Queuing on the off-ramp	✓	✓		<$5,000	✓	✓
3	East Pine St at 10th St/Freeman Rd TSM	▪ Maintain signal progression to avoid queuing that affects the I-5 SB ramp terminal ▪ Implement protected/permissive left-turn phasing on NB and SB approaches ▪ Extend left-turn lane striping on East Pine St to provide more queue storage for WB left-turn movement and consider restricting access between 10th St and Jewett School Rd to right turns only	Ongoing	▪ WB queuing that affects SB ramp terminal ▪ Congestion on 10th St/ Freeman Rd ▪ WB queuing that affect SB ramp terminal	✓	✓		$50,000	✓	✓
4	East Pine St at Peninger Rd TSM	▪ Maintain signal progression to avoid queuing that affects the I-5 NB ramp terminal ▪ Implement protected/permissive left-turn phasing on NB and SB approaches	Ongoing	▪ EB queuing that affects NB ramp terminal ▪ Congestion and delays on Peninger Rd	✓	✓		$25,000	✓	✓
5	East Pine St east of I-5 TSM	▪ Maintain signal progression to avoid queuing that affects the I-5 NB ramp terminal	Ongoing	▪ EB queuing that affects NB ramp terminal	✓	✓		<$5,000		✓
BICYCLE AND PEDESTRIAN INFRASTRUCTURE PROJECTS TO ADDRESS EXISTING DEFICIENCIES										
6	South Sidewalk on East Pine St between Ramp Terminals	▪ Add a 5-ft sidewalk to south side of bridge by replacing railing and restriping roadway with narrower travel lanes[3] ▪ Connect bridge sidewalk to the existing sidewalk network and the ramp terminals	High to Medium	▪ Current deficiency	✓	✓	✓	$1,200,000	✓	✓
7	Bike Lane on East Pine St between 10th St/Freeman Rd and I-5 SB Ramp Terminal	▪ Restripe eastbound travel lanes between 9th Street and the I-5 southbound ramp to improve bike lane transitions[3]	High	▪ Current deficiency	✓	✓	✓	$25,000	✓	✓

Table 8. Summary of IAMP Improvements

	Improvement	Description	Implementation: Priority	Implementation: Trigger	Mobility	Safety	Multimodal	Estimated Cost[1]	State	Local
ROADWAY INFRASTRUCTURE PROJECTS NEEDED TO MEET FUTURE DEMAND										
8	I-5 SB Ramp Terminal at East Pine St	▪ Widen East Pine St beginning at the west end of the freeway overpass to add a second WB left-turn lane with up to 200 feet of additional storage[3] ▪ Widen the SB on-ramp to create two receiving lanes that merge to a single lane	Medium to Low	Queuing on the off-ramp that cannot be managed with signal timing	✓	✓		$1,300,000	✓	✓
9	I-5 NB Ramp Terminal at East Pine St	▪ Widen NB off-ramp to provide a second right-turn lane with approximately 350 feet of storage	Medium to Low	Queuing on the off-ramp that cannot be managed with signal timing	✓	✓		$1,700,000	✓	✓
10	East Pine St at Peninger Rd	▪ Implement Central Point TSP Tier 2 Project #236 – Widen East Pine St to accommodate a third WB through travel lane that will feed into the existing right-turn lane at the I-5 NB on-ramp; Maintain bike lanes; Add sidewalks where necessary (revised project description)	Low	Queuing and congestion that affects NB ramp operations	✓	✓		$150,000[2]		✓
11	East Pine St at Hamrick Rd	▪ Implement Central Point TSP Tier 1 Project #216 – Widen west and north approaches to add a dual eastbound left-turn lane and second northbound receiving lane	Medium	Intersection congestion or queuing	✓	✓		$600,000[2]		✓
SUMMARY OF PRELIMINARY COST ESTIMATES										
Transportation System Management Measures to Maintain Safe and Efficient Operations								$90,000		
Bicycle and Pedestrian Infrastructure Projects to Address Existing Deficiencies								$1,225,000		
Roadway Infrastructure Projects Needed to Meet Future Demand								$3,750,000		
TOTAL								**$5,065,000**		

Acronyms: NB = northbound, SB = southbound, EB = eastbound, WB = westbound

Notes:

1. Cost estimates were prepared in year 2012 using present day dollars and are consistent with standard estimating methods.
2. The costs for the Central Point TSP projects are taken from Table 12.4 (Tier 1 – Medium Term Projects) and Table 12.6 (Tier 2 Projects) and increased by approximately 20 percent to account for inflation since the TSP was prepared.
3. A design exception will be required.

3.2.1. Cost Estimates

Cost estimates for all planned improvements are summarized in Table 8. These estimates are preliminary and include engineering and construction (with a contingency factor) but do not include right-of-way costs, and may change as the design is refined. In addition, the estimates do not account for utility costs or the potential costs of environmental analyses or mitigation. The costs for the Central Point TSP projects are taken from Table 12.4 (Tier 1 – Medium Term Projects) and increased by approximately 20 percent to account for inflation since the TSP was prepared.

3.2.2. Planned Improvement Operations

Operations at relevant intersections for the planned improvement network were evaluated for the future condition with results summarized in Table 9. All intersections are expected to meet OHP performance targets with the year 2038 forecasts.

3.3. Project Sheets

Project sheets have been prepared for each planned improvement identifying:

- Name
- Location
- Recommended Improvement
- Project purpose
- Existing/Future Deficiencies without project
- Result of improvements (i.e., how it addresses deficiencies)
- Considerations/potential impacts
- Cost opinion
- Implementation (priority, phasing, triggers)
- Illustration

Additionally, a project sheet has been included for the proposed city multi-use path on East Pine Street.

Table 9. Future (Year 2038) Operations with Planned Improvements

Intersection	Critical Movement	V/C Ratio[1]	LOS[1]	Performance Target[2]	
				Design	OHP
AM Peak Hour					
I-5 SB Ramps & East Pine St (Signalized)	Overall	0.72	C	0.80	0.85
I-5 NB Ramps & East Pine St (Signalized)	Overall	0.53	A	0.80	0.85
PM Peak Hour					
10th St/Freeman Rd & East Pine St (Signalized)	Overall	0.77	C	0.95/LOS D	0.95/LOS D
I-5 SB Ramps & East Pine St (Signalized)	Overall	0.65	B	0.80	0.85
I-5 NB Ramps & East Pine S (Signalized)	Overall	0.76	B	0.80	0.85
Peninger Rd & East Pine S (Signalized)	Overall	0.94	C	0.95/LOS D	0.95/LOS D
Hamrick Rd & East Pine S (Signalized)	Overall	0.92	C	0.95/LOS D	0.95/LOS D

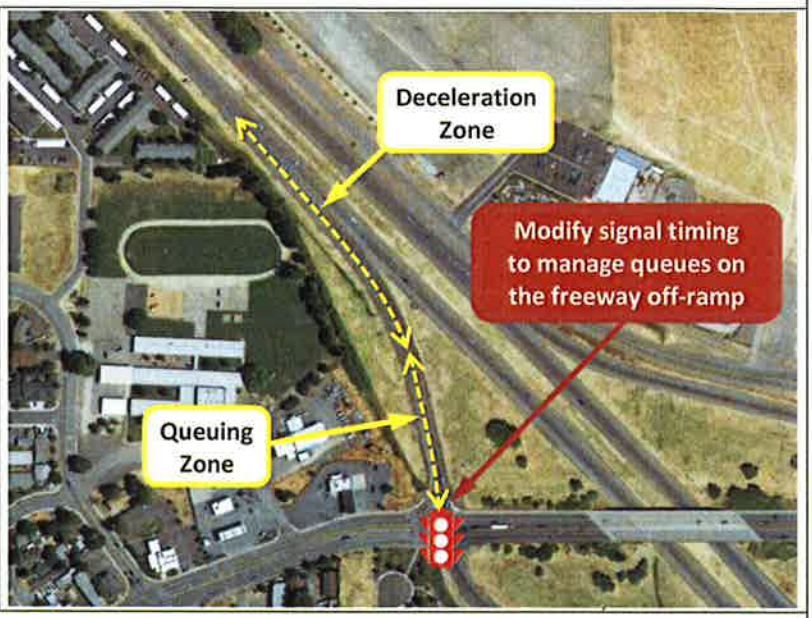
Notes:
1. The v/c ratios and levels of service (LOS) are calculated from the Synchro macrosimulation analysis, which cannot account for the influence of signalized intersections on unsignalized intersection operations or reflect the effects of queue spillover.
2. Performance targets are based on the 2012 Highway Design Manual, the Oregon Highway Plan, and the Jackson County and Central Point Transportation System Plans.

Shaded results indicate where performance targets are not met.

Source: Synchro HCM Intersection Analysis Report and SimTraffic microsimulation

Project 1. I-5 Southbound Ramp Terminal/East Pine Street TSM – Signal Timing Modifications

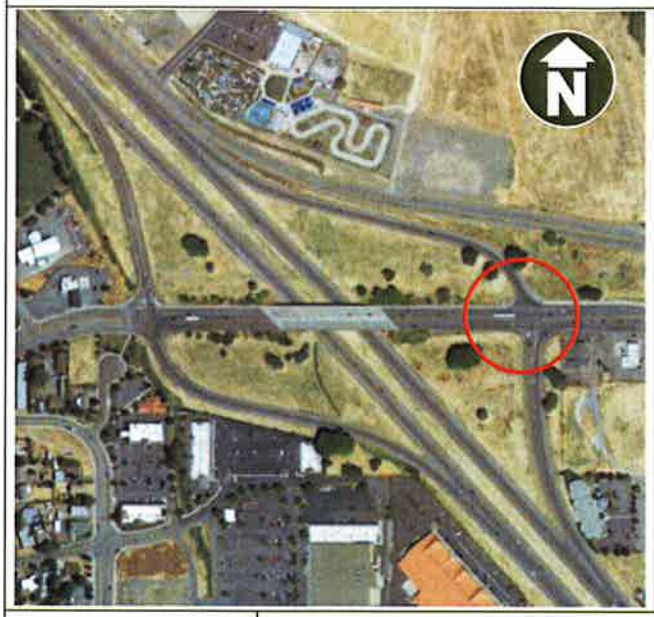
I-5 Exit 33 (Central Point): Interchange Area Management Plan



Description	▪ Maintain traffic signal timing to safely manage queues on the SB off-ramp	
Purpose	▪ Address safety concerns at I-5 SB Ramp Terminal/East Pine Street intersection	
Roadway Characteristics	▪ Existing East Pine Street cross section is 5 lanes with shoulders for bicycles and sidewalk on north side ▪ Single exit lane from freeway widens to provide two lanes for queue storage with a short right-turn slip lane; lane striping at signal includes left, left-through, and right – all are controlled with signals ▪ Single entrance lane onto freeway ▪ Exit speed on southbound off-ramp 45 mph ▪ Posted speed on East Pine Street is 35 mph ▪ Southbound off-ramp: Current (2010) ADT = 4,000-4,200 vpd; Forecast (2038) ADT = 5,000 vpd ▪ I-5 Overcrossing: Current (2010) ADT = 24,000 vpd; Forecast (2038) ADT = 33,000 vpd ▪ 19 intersection related crashes in analysis period (2006-2008)	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	**With Improvement**
	▪ V/C ratio estimated at 0.94 during the AM peak hour and 0.79 during the PM peak hour for the year 2038 ▪ Over time, SB ramp queues are expected to get longer and could result in an insufficient stopping distance for traffic exiting the freeway, especially during the AM peak hour, which is the peak period for this ramp	▪ Signal timing adjustments would be implemented to ensure safe stopping distance is maintained on the off-ramp
Additional Considerations	▪ Additional intersection capacity may be needed if ramp queuing cannot be safely managed without creating safety concerns on East Pine Street	
Cost Opinion	▪ < $5,000	
Implementation	▪ TSM measures can be implemented when needed in response to queuing and congestion ▪ Project 8. I-5 Southbound On-Ramp – Dual Westbound Left-Turn Lanes may be needed to address congestion if TSM is no longer sufficient	

Project 2. I-5 Northbound Ramp Terminal/East Pine Street TSM – Signal Timing Modifications

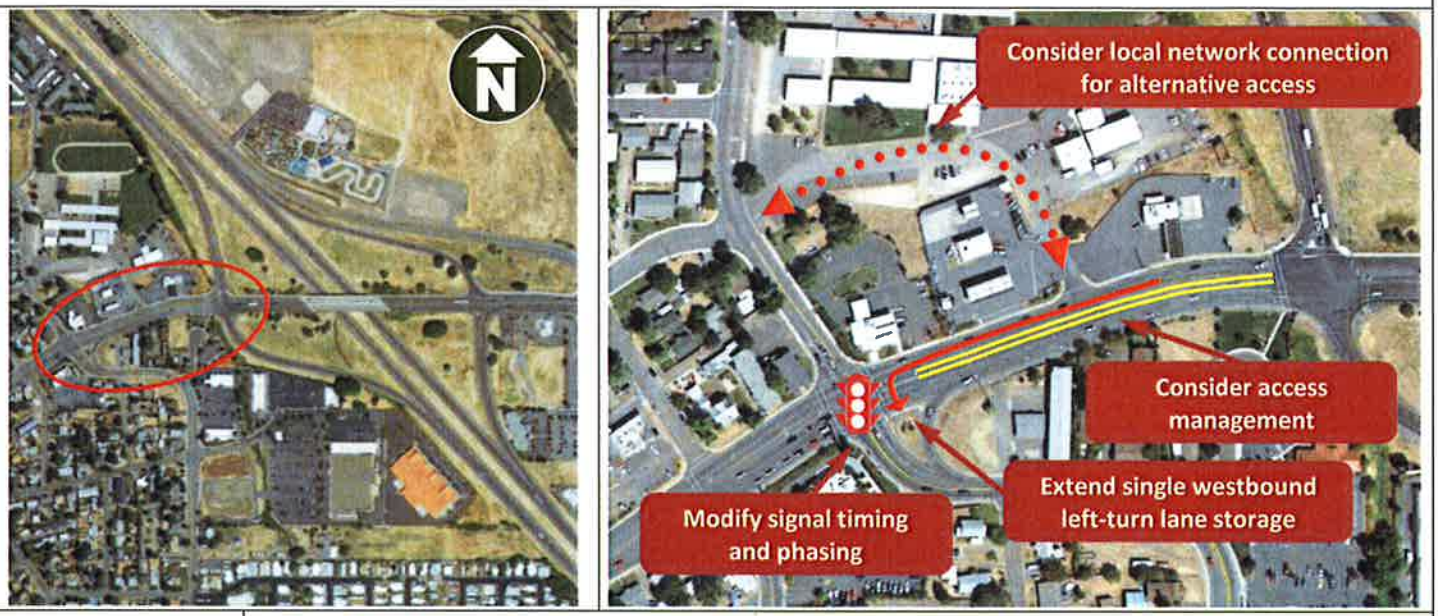
I-5 Exit 33 (Central Point): Interchange Area Management Plan



Description	▪ Maintain traffic signal timing to safely manage queues on the NB off-ramp	
Purpose	▪ Address safety concerns at I-5 NB Ramp Terminal/East Pine Street intersection	
Roadway Characteristics	▪ Existing East Pine Street cross section is 5 lanes with shoulders for bicycles and sidewalk on north side ▪ Single exit lane from freeway widens to provide three lanes for queue storage; lane striping at signal includes left, left-through, and right – all are controlled with signals ▪ Single entrance lane onto freeway ▪ Posted speed on East Pine Street is 35 mph ▪ Exit speed on the northbound off-ramp is 30 mph ▪ Northbound off-ramp: Current (2010) ADT = 6,100-6,500 vpd; Forecast (2038) ADT = 10,200 vpd ▪ I-5 Overcrossing: Current (2010) ADT = 24,000 vpd; Forecast (2038) ADT = 33,000 vpd ▪ 30 intersection related crashes including 17 that resulted in other injuries (2006-2008)	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	**With Improvement**
	▪ V/C ratio estimated at 0.64 during the AM peak hour and 0.98 during the PM peak hour for the year 2038 ▪ Over time, NB ramp queues are expected to get longer and could result in an insufficient stopping distance for traffic exiting the freeway, especially during the PM peak hour, which is the peak period for this ramp	▪ Signal timing adjustments would be implemented to ensure safe stopping distance is maintained on the off-ramp
Additional Considerations	▪ Additional intersection capacity may be needed if queuing cannot be safely managed without creating safety concerns on East Pine Street	
Cost Opinion	▪ < $5,000	
Implementation	▪ TSM measures can be implemented when needed in response to queuing and congestion ▪ Project 9. I-5 Northbound Ramp Terminal – Dual Right-Turn Lanes may be needed to address congestion if TSM is no longer sufficient	

Project 3. 10th Street/Freeman Road/East Pine Street TSM – Signal Timing Modifications and Queue Storage

I-5 Exit 33 (Central Point): Interchange Area Management Plan



Description	▪ Change from protected left-turn phasing on the northbound and southbound approaches to protected/permissive left-turn phasing ▪ Extend the left-turn lane on East Pine Street striping to provide more queue storage for the westbound left-turn movement and consider restricting access between 10th Street and Jewett School Road to right turns only	
Purpose	▪ Address capacity and safety concerns between I-5 southbound ramp terminal and the 10th Street/Freeman Road/East Pine Street intersection	
Roadway Characteristics	▪ Existing roadway width is 5 to 6 lanes (85 feet in at least 100-foot ROW) ▪ Posted speed is 25 mph ▪ East Pine Street: Current (2010) ADT = 23,000 vpd; Forecast (2038) ADT = 30,000 vpd ▪ 21 rear end collisions at intersection	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Longer queues on 10th Street and Freeman Road anticipated ▪ Westbound left-turn queues are expected to grow and extend past driveways on the north side of East Pine Street ▪ More conflicts between westbound vehicles queuing at intersection and vehicles turning into driveways are anticipated	**With Improvement** ▪ Operations would meet city and county performance targets by managing signal timing and phasing ▪ Queuing would generally be reduced and influence on the I-5 southbound ramps would be minimized. ▪ Additional left-turn storage which may reduce the potential for rear end collisions ▪ Reduced conflict points at Jewett would improve safety
Additional Considerations	▪ Implement Access Management Action 1 ▪ A raised median should be considered for enforcement of restricted access at Jewett School Road ▪ Minimize the impacts to adjacent businesses with a public connection or easement, potentially through the school property, to 10th Street opposite Manzanita Street	
Cost Opinion	▪ $50,000	
Implementation	▪ TSM measures can be implemented when needed in response to queuing and congestion ▪ Access management could be implemented at any time; especially if a clear pattern of crashes develops	

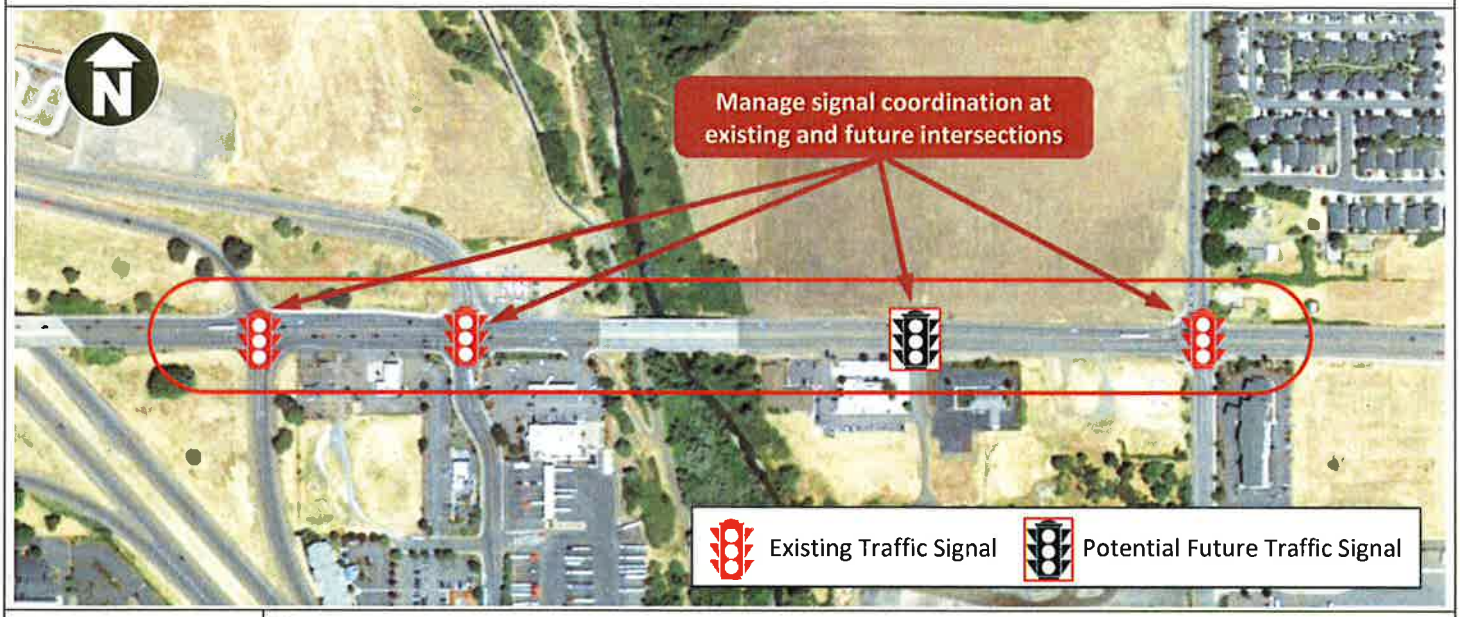
Project 4. Peninger Road/East Pine Street TSM – Signal Timing Modifications

I-5 Exit 33 (Central Point): Interchange Area Management Plan

Description	▪ Maintain signal progression to avoid queuing conflict that affects I-5 NB Ramp Terminal ▪ Change from protected left-turn phasing on the northbound and southbound approaches to protected/permissive left-turn phasing	
Purpose	▪ Maintain traffic flow on East Pine Street and provide a shorter term solution to address capacity concerns at the Peninger Road/East Pine Street intersection	
Roadway Characteristics	▪ Existing roadway width varies from 5 to 7 lanes on East Pine Street and 2 to 4 lanes on Peninger Road ▪ East Pine Street: Current (2010) ADT = 25,000 vpd; Forecast (2038) ADT = 38,000 vpd ▪ Posted speed is 35 mph	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ V/C ratio estimated at 1.04 for the PM peak hour by year 2038 ▪ Queuing present on all approaches	**With Improvement** ▪ V/C ratio estimated at 1.01 for the PM peak hour by year 2038 ▪ Queuing on eastbound approach would be minimized to reduce impact on I-5 NB off-ramp
Additional Considerations	▪ Signal timing adjustments can be implemented in response to growing congestion ▪ Additional improvement will eventually be needed to accommodate future demand	
Cost Opinion	▪ $25,000	
Implementation	▪ TSM measures can be implemented when needed in response to queuing and congestion ▪ Project 10. Peninger Road/East Pine Street Intersection Improvements may be needed to address congestion if TSM is no longer sufficient	

Project 5. East Pine Street TSM – Signal Timing Modifications

I-5 Exit 33 (Central Point): Interchange Area Management Plan



Description	▪ Maintain signal progression, particularly in the eastbound direction, to avoid queuing that affects I-5 NB ramp terminal	
Purpose	▪ Maintain traffic flow on East Pine Street east of the freeway	
Roadway Characteristics	▪ Existing roadway width varies from 5 to 7 lanes on East Pine Street and 2 to 4 lanes on Peninger Road ▪ Three existing signals and one potential future signal ▪ East Pine Street: Current (2010) ADT = 22,000-25,000 vpd; Forecast (2038) ADT = 32,000-38,000 vpd ▪ Posted speed is 35 mph	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	**With Improvement**
	▪ V/C ratio estimated at 1.04 at Peninger Road for the PM peak hour by year 2038 ▪ V/C ratio estimated at 1.09 at Hamrick Road for the PM peak hour by year 2038 ▪ As congestion increases, significant queuing and spillback are anticipated	▪ Traffic flow on East Pine Street would be maintained in the eastbound direction to avoid impacting the northbound ramp terminal ▪ V/C ratios would not be addressed and queues would build on side street approaches – additional improvements would eventually be needed
Additional Considerations	▪ Signal timing can be implemented in response to growing queues ▪ Additional improvement will eventually be needed to accommodate future demand	
Cost Opinion	▪ < $5,000	
Implementation	▪ TSM measures should be implemented when needed in response to queuing and congestion ▪ Project 11. Hamrick Road/East Pine Street Intersection Improvements may be needed to address congestion if TSM is no longer sufficient	

Project 6. South Sidewalk between Ramp Terminals

I-5 Exit 33 (Central Point): Interchange Area Management Plan

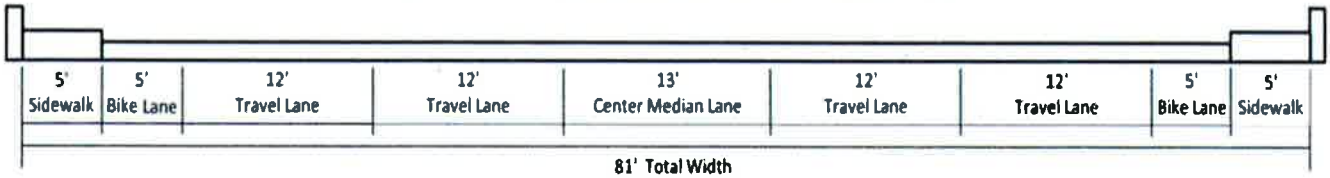
Description	▪ Add a sidewalk on the south side of East Pine Street between the northbound and southbound ramp terminals.	
Purpose	▪ Address existing pedestrian network deficiency ▪ Improve pedestrian safety	
Roadway Characteristics	▪ Existing paved surface on the bridge is 74 feet (79 feet inside the bridge railings) ▪ Posted speed is 35 mph ▪ I-5 Overcrossing: Current (2010) ADT = 24,000 vpd; Forecast (2038) ADT = 33,000 vpd ▪ 1 pedestrian crash (near Northbound Ramp terminal) in analysis period (2006-2008)	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	**With Improvement**
	▪ No sidewalk on south side between ramps ▪ Pedestrians often use the bike lane instead of the north sidewalk	▪ Proposed 5-foot sidewalk on south side on bridge (freeway overpass) ▪ Proposed 6-foot sidewalk on south side except on bridge
Additional Considerations	▪ Once a sidewalk is added to the bridge structure, it can be connected to the rest of the network with relative ease ▪ A more typical 6-foot sidewalk is suggested for the connection from bridge to the existing facilities at the ramp terminals and the bike and vehicle lanes could resume standard widths ▪ Would require a design exception for new center turn lane width, bike lane widths, and sidewalk width ▪ If curb is considered in 5-foot sidewalk width, an ADA exception would also be needed	
Cost Opinion	▪ $1.2 million assuming curbs and sidewalks (excluding seismic retrofitting of bridge, drainage, new guardrail, signal and lighting relocation) ▪ Estimate assumes removal of the existing railing and some decking and construction of a 5-foot sidewalk, railing, and fencing. ▪ Off the bridge, the estimate assumes a new 6-foot sidewalk extending to the I-5 ramp terminals, with new curb and relocated drainage inlets	
Implementation	▪ High to medium priority	

Project 6. South Sidewalk between Ramp Terminals

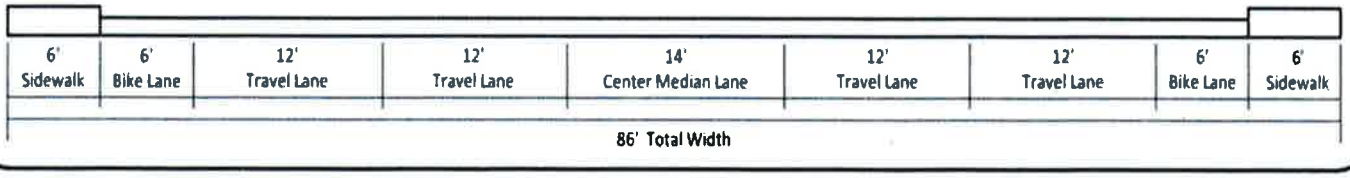
I-5 Exit 33 (Central Point): Interchange Area Management Plan

Preliminary Alignment Concept

CROSS-SECTION ON FREEWAY OVERPASS (BRIDGE)



CROSS-SECTION BETWEEN RAMPS AND OVERPASS (NON-BRIDGE)



Project 7. Bike Lane Improvements

I-5 Exit 33 (Central Point): Interchange Area Management Plan

Description	▪ Restripe eastbound travel lanes between 9th Street and the I-5 southbound ramp to improve bike lane transitions	
Purpose	▪ Address the existing conflict between vehicles and bicyclists in the eastbound direction ▪ Address existing safety concern for bicyclists	
Roadway Characteristics	▪ Posted speed is 25 mph ▪ East Pine Street: Current (2010) ADT = 23,000 vpd; Forecast (2038) ADT = 30,000 vpd ▪ 19 intersection related crashes in analysis period (2006-2008) at southbound ramps	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	**With Improvement**
	▪ Bicyclists trying to travel eastbound along East Pine Street become trapped by the right-turn lane and must cross a stream of right-turning vehicles to continue through the intersection ▪ Current striping creates a vehicular weaving section between Freeman Road and I-5 southbound ramps ▪ V/C ratio estimated at 0.77 at 10th Street/Freeman Road for the PM peak hour by year 2038	▪ Bike lane striped adjacent to the outermost vehicular through travel lane with right-turn lanes and curbside hatching to define the bike lane ▪ Standard bike lane transitions striped at 2 locations: between 9th and 10th Streets and between Freeman Road and the I-5 southbound ramps ▪ Maintains two eastbound through travel lanes on East Pine Street from 9th Street to the I-5 southbound ramp terminal ▪ Striping for right-turn from Freeman Road to East Pine Street would eliminate weaving movement between Freeman Road and the I-5 southbound ramps ▪ V/C ratio estimated at 0.84 at 10th Street/Freeman Road for the PM peak hour by year 2038 which would result in some added delay but would meet operational standards ▪ Added safety benefit for pedestrians by stopping right-turning traffic from East Pine Street onto Freeman Road when the pedestrian call button is pushed.
Additional Considerations	▪ Green paint can be added to highlight conflict points between vehicles and bicycles ▪ Would likely require a design exception for new center turn lane width with repositioning of bike lane	
Cost Opinion	▪ $50,000 for new signal heads for the eastbound right-turn traffic and the bicycle lane striping ▪ Additional signage would be needed as well	
Implementation	▪ High priority	

Project 7. Bike Lane Improvements

I-5 Exit 33 (Central Point): Interchange Area Management Plan

Preliminary Alignment Concept

POTENTIAL CROSS-SECTION APPROACHING SOUTHBOUND RAMP WITH RELOCATED BIKE LANE

6' Sidewalk	6' Bike Lane	12' Travel Lane	12' Travel Lane	12' Center Median Lane	12' Travel Lane	12' Travel Lane	6' Bike Lane	13-14' Right-Turn Lane	6' Sidewalk

85-86' Total Width

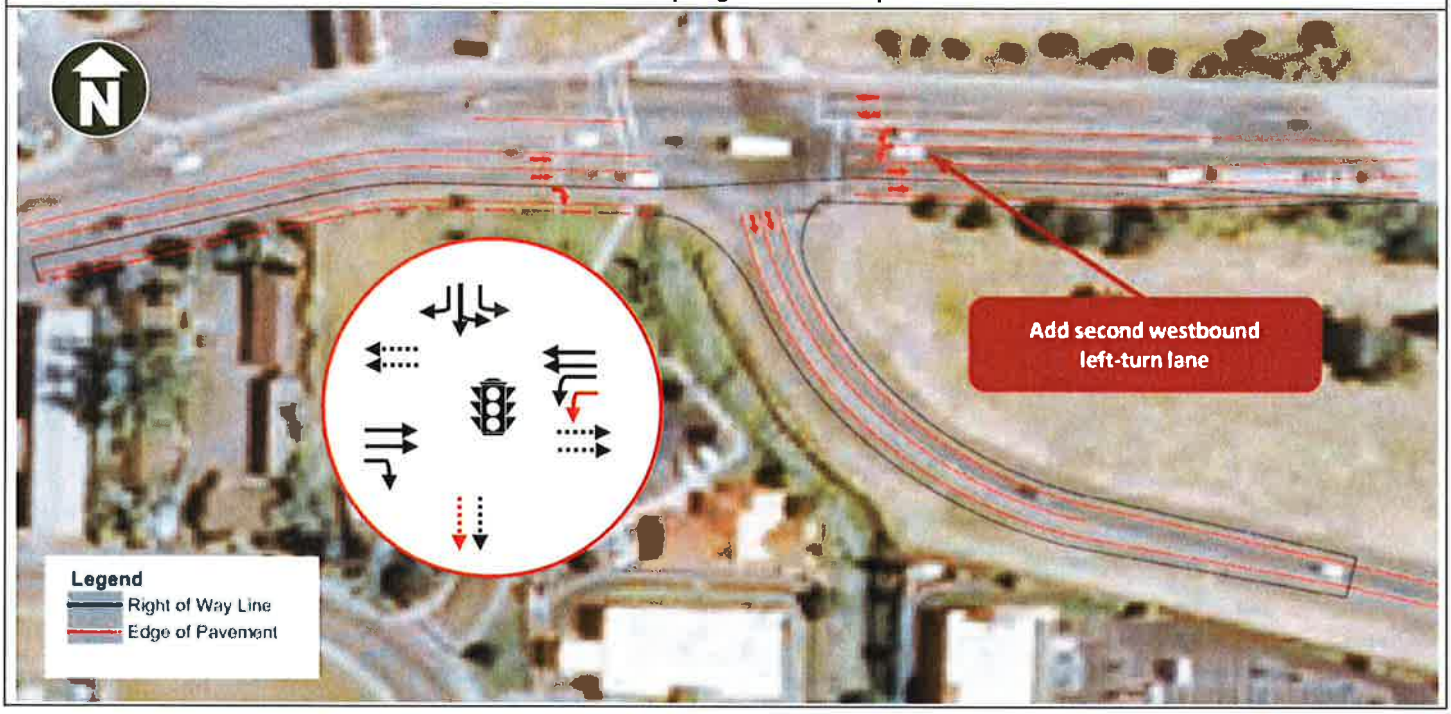
Project 8. I-5 Southbound On-Ramp – Dual Westbound Left-Turn Lanes	***I-5 Exit 33 (Central Point): Interchange Area Management Plan***

Description	▪ Add a second westbound left-turn lane on East Pine Street onto the I-5 southbound on-ramp ▪ Add a second southbound receiving lane on the I-5 southbound on-ramp	
Purpose	▪ Address queuing problems on off-ramp ▪ Reduce future safety hazards at this intersection	
Roadway Characteristics	▪ Existing East Pine Street cross section is 5 lanes with shoulders for bicycles and sidewalk on north side ▪ Single exit lane from freeway widens to provide two lanes for queue storage with a short right-turn slip lane; lane striping at signal includes left, left-through, and right – all are controlled with signals ▪ Single entrance lane onto freeway ▪ Exit speed on southbound off-ramp 45 mph ▪ Posted speed on East Pine Street is 35 mph ▪ Southbound off-ramp: Current (2010) ADT = 4,000-4,200 vpd; Forecast (2038) ADT = 5,000 vpd ▪ I-5 Overcrossing: Current (2010) ADT = 24,000 vpd; Forecast (2038) ADT = 33,000 vpd ▪ 19 intersection related crashes in analysis period (2006-2008)	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ V/C ratio estimated at 0.94 during the AM peak hour and 0.79 during the PM peak hour for the year 2038 ▪ Over time, SB ramp queues are expected to get longer and could result in an insufficient stopping distance for traffic exiting the freeway, especially during the AM peak hour, which is the peak period for this ramp	**With Improvement** ▪ V/C ratio estimated at 0.72 during the AM peak hour and 0.65 during the PM peak hour for the year 2038 ▪ Additional left-turn storage lane of 200' on East Pine Street ▪ Safety issues associated with long queue would be relieved
Additional Considerations	▪ The widening of East Pine Street would begin just west of the bridge structure and the second left-turn lane would have up to 200 feet of additional storage ▪ Modification would require a design exception (30 mph assumed for taper) or have ROW impacts in the northwest quadrant (if posted speed is used for taper) ▪ Several hazardous material sites are located within the southwest quadrant of the intersection	
Cost Opinion	▪ $1.7 million (excluding ROW, utility relocation, or costs to address potential hazardous waste)	
Implementation	▪ Medium to low priority ▪ Monitor queuing on the southbound off-ramp maintain safe operations	

Project 8. I-5 Southbound On-Ramp – Dual Westbound Left-Turn Lanes

I-5 Exit 33 (Central Point): Interchange Area Management Plan

Preliminary Alignment Concept



Project 9. I-5 Northbound Ramp Terminal – Dual Right-Turn Lanes

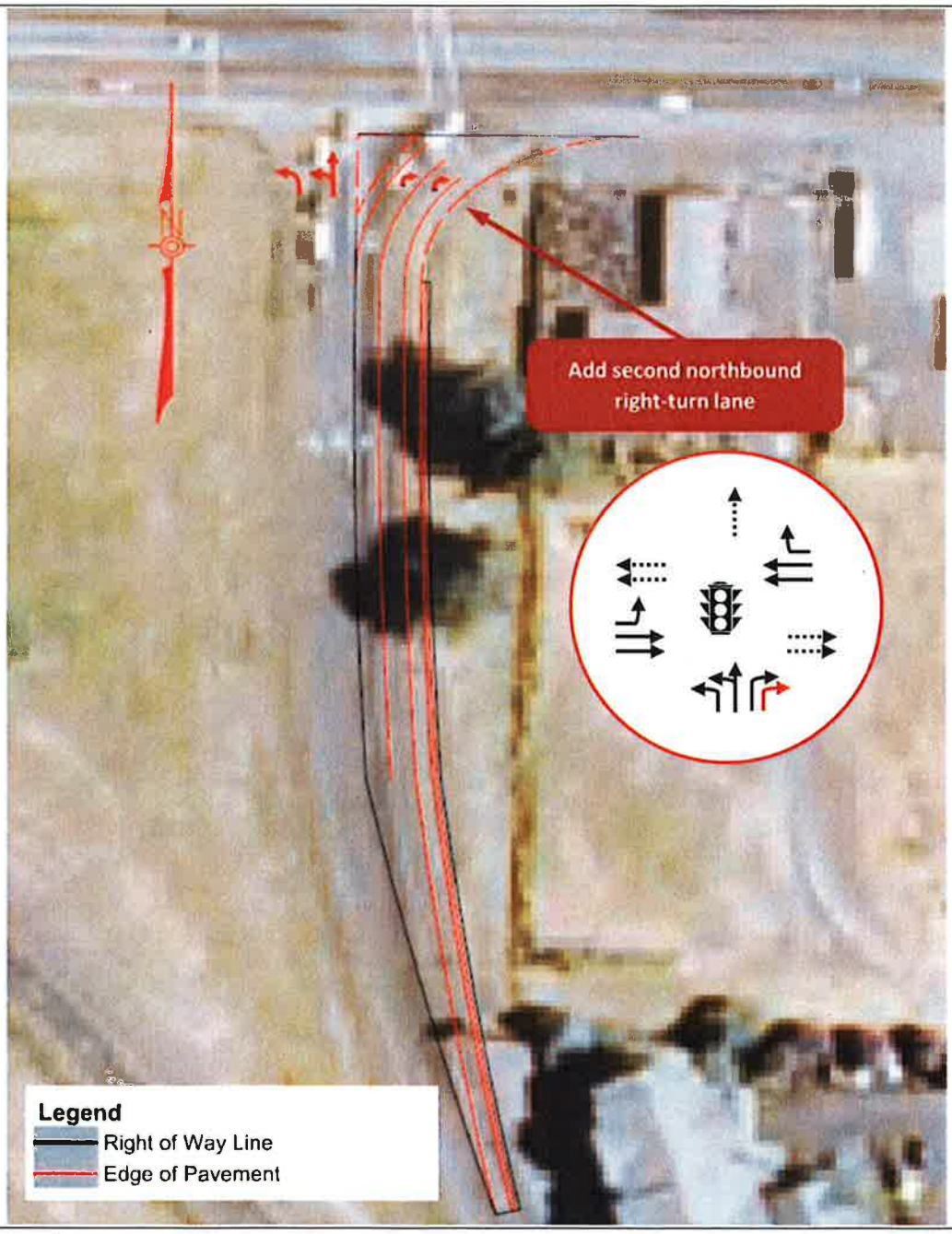
I-5 Exit 33 (Central Point): Interchange Area Management Plan

Description	▪ Widen the I-5 northbound off-ramp to add a second right-turn lane at the northbound approach to East Pine Street.	
Purpose	▪ Plan for long-term capacity needs ▪ Address safety concerns associated with queuing on the off-ramp	
Roadway Characteristics	▪ Existing East Pine Street cross section is 5 lanes with shoulders for bicycles and sidewalk on north side ▪ Single exit lane from freeway widens to provide three lanes for queue storage; lane striping at signal includes left, left-through, and right – all are controlled with signals ▪ Single entrance lane onto freeway ▪ Posted speed on East Pine Street is 35 mph ▪ Exit speed on the northbound off-ramp is 30 mph ▪ Northbound off-ramp: Current (2010) ADT = 6,100-6,500 vpd; Forecast (2038) ADT = 10,200 vpd ▪ I-5 Overcrossing: Current (2010) ADT = 24,000 vpd; Forecast (2038) ADT = 33,000 vpd ▪ 30 intersection related crashes including 17 that resulted in other injuries (2006-2008)	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	**With Improvement**
	▪ V/C ratio estimated at 0.64 during the AM peak hour and 0.98 during the PM peak hour for the year 2038 ▪ Existing 1-lane right-turn capacity is not sufficient for future demand ▪ Over time, NB ramp queues are expected to get longer and could result in an insufficient stopping distance for traffic exiting the freeway, especially during the PM peak hour, which is the peak period for this ramp ▪ Majority of crashes were rear-end	▪ V/C ratio estimated at 0.53 during the AM peak hour and 0.76 during the PM peak hour for the year 2038 ▪ Additional storage lane of 350' ▪ Addition of northbound right-turn lane would relieve queuing issues ▪ Improved operations could mean fewer stops at the intersection thus reducing rear end collision potential
Additional Considerations	▪ Additional ROW needed ▪ The additional lane will not address safety conditions for pedestrians unless no turn on red is implemented for the northbound right-turn movement	
Cost Opinion	▪ $1.3 million (excluding ROW, utility relocation, or costs to address potential hazardous waste)	
Implementation	▪ Medium to low priority ▪ Short term: traffic signal timing may be used to manage queues on ramps ▪ Long term: additional storage and capacity or the right-turn movement will be needed	

Project 9. I-5 Northbound Ramp Terminal – Dual Right-Turn Lanes

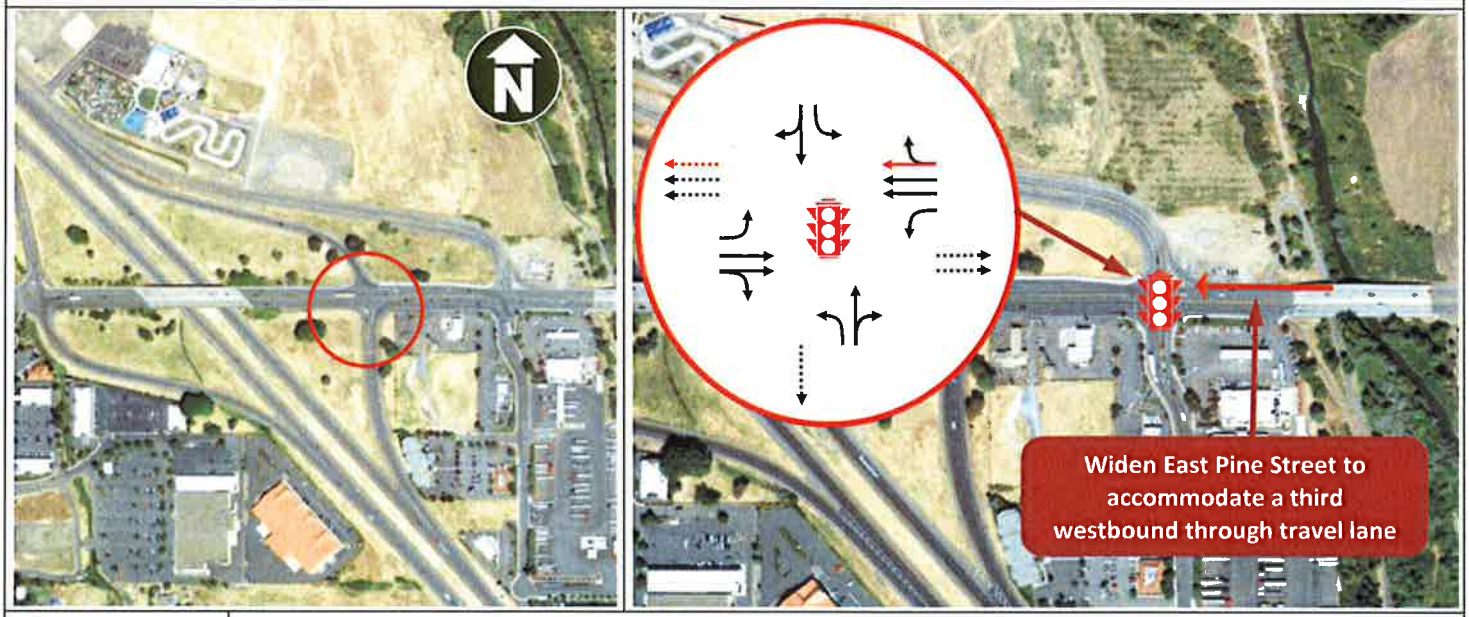
I-5 Exit 33 (Central Point): Interchange Area Management Plan

Preliminary Alignment Concept



Project 10. Peninger Road/East Pine Street Intersection Improvements

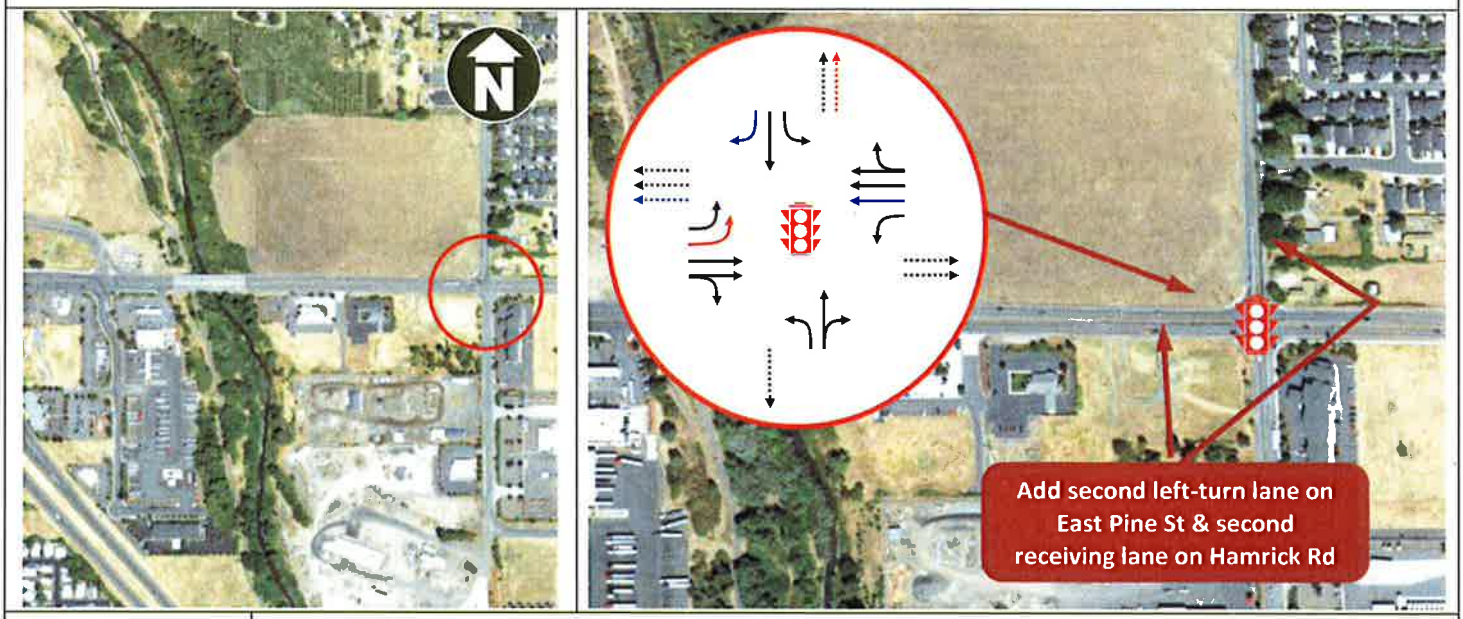
I-5 Exit 33 (Central Point): Interchange Area Management Plan



Description	▪ Implement Central Point TSP Tier 2 Project #236 – Widen East Pine Street to accommodate a third westbound through travel lane that will feed into the existing right-turn lane at the I-5 northbound on-ramp ▪ Maintain bike lanes ▪ Add sidewalks where necessary (revised project description)	
Purpose	▪ Address capacity concerns at Peninger Road/East Pine Street intersection	
Roadway Characteristics	▪ Existing roadway width varies from 5 to 7 lanes on East Pine Street and 2 to 4 lanes on Peninger Road ▪ Posted speed is 35 mph ▪ East Pine Street: Current (2010) ADT = 25,000 vpd; Forecast (2038) ADT = 38,000 vpd ▪ 19 intersection related crashes in analysis period (2006-2008)	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ V/C ratio estimated at 1.04 for the PM peak hour by year 2038 ▪ Queuing present on all approaches	**With Improvement** ▪ V/C ratio estimated at 0.94 for the PM peak hour by year 2038 ▪ Does not address proximity of Peninger intersection to interchange ramps
Additional Considerations	▪ Implement Access Management Action 2 ▪ Limits widening to section of East Pine Street west of the Bear Creek bridge ▪ Project may be adequate to accommodate development associated with the Urban Reserve Area CP-3 and the Jackson County Expo but operations and queuing should be evaluated with proposed development to establish if other mitigation is also needed ▪ Project would not be needed if Central Point TSP Tier 2 Projects #240 and #245 are implemented	
Cost Opinion	▪ $150,000 based on acknowledged City TSP cost estimate with 20% inflation rate	
Implementation	▪ Medium to low priority ▪ All proposed development within the IMSA will be evaluated to determine if a traffic impact study is required to determine when the improvement is needed ▪ Project should not be implemented if Central Point TSP Tier 2 Projects #240 and #245 are implemented	

Project 11. Hamrick Road/East Pine Street Intersection Improvements

I-5 Exit 33 (Central Point): Interchange Area Management Plan



Description	▪ Implement Central Point TSP Tier 1 Project #216 – Widen west and north approaches to add a dual left-turn lane and second receiving lane	
Purpose	▪ Address capacity and safety concerns associated with congestion and queuing	
Roadway Characteristics	▪ Existing roadway width is 5 lanes on East Pine Street and 2 to 3 lanes on Hamrick Road ▪ Posted speed is 35 mph on East Pine Street west of Hamrick Road and 45 mph on Biddle Road east of Hamrick Road ▪ East Pine Street: Current (2010) ADT = 22,000 vpd; Forecast (2038) ADT = 35,000 vpd ▪ Posted speed is 40 mph on Hamrick Road ▪ 16 rear end collisions, 5 rear-end collisions, 10 turning collisions, 1 backing collisions	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ V/C ratio estimated at 1.09 for the PM peak hour by year 2038 ▪ Queues would be an issue on all intersection approaches	**With Improvement** ▪ V/C ratio estimated at 0.92 for the PM peak hour by year 2038 ▪ Queuing would generally be reduced and impacts on other intersections would be minimized. ▪ Additional left-turn storage may reduce the potential for rear end collisions
Additional Considerations	▪ Implement Access Management Action 3 ▪ Currently identified as TSP Tier 1 Project #216 ▪ Additional ROW may be needed depending on alignment of roadway within existing ROW ▪ Some widening on Biddle Road would be needed to offset widening on the west side of Hamrick which could properties adjacent to the roadway ▪ V/C calculations do not include shifts in traffic related to Gebhard Road extension to East Pine Street	
Cost Opinion	▪ $600,000 based on acknowledged City TSP cost estimate with 20% inflation rate	
Implementation	▪ TSP Tier 1 Project #216 should be triggered by intersection congestion or by development of adjacent lands ▪ TSP Project #216 is currently identified as a medium priority project	

Proposed City Shared Use Path Project (Optional)

I-5 Exit 33 (Central Point): Interchange Area Management Plan

Description	▪ Construct a shared use path on the north side of East Pine Street from 9th Street to the Bear Creek Greenway	
Purpose	▪ Provide a path connection from downtown Central Point and the surrounding residential areas to the Bear Creek Greenway	
Roadway Characteristics	▪ Existing East Pine Street cross section is 5 to 6 lanes with shoulders for bicycles ▪ Sidewalks on the north side extend from 9th Street to the Bear Creek Greenway ▪ Sidewalks on the south side extend from 9th Street to the southbound ramp terminal and from the northbound ramp terminal to the Bear Creek Greenway ▪ Posted speed on East Pine Street is 25 mph west of the southbound ramp terminal and 35 mph across the freeway to the Bear Creek Greenway ▪ I-5 Overcrossing: Current (2010) ADT = 27,000 vpd; Forecast (2038) ADT = 38,000 vpd	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	**With Improvement**
	▪ Existing sidewalk and bike lane on the north side of East Pine Street meet ODOT standards	▪ Shared use path would relocate bicyclists from roadway to separated path
Additional Considerations	▪ The shared use path would cross a number of closely spaced driveways and intersection between 9th Street and the southbound ramp terminal – bicyclists will need to be very alert for approaching traffic ▪ Would require a design exception for shy distance, bike lane, sidewalk, and multiuse path widths ▪ Access control recommended along north side of East Pine Street east of the interchange to reduce the number of conflicts between vehicles and path users ▪ This project is optional because it would replace one type of adequate facility with another type of adequate facility	
Cost Opinion	▪ $465,000	
Implementation	▪ Priority to be determined by City of Central Point ▪ Funding to be provided by local agencies or through grants/earmarks; no funding to come from ODOT Enhance program due to the limited availability of Enhance funding	

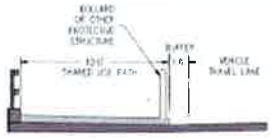
Proposed City Shared Use Path Project (Optional)

I-5 Exit 33 (Central Point): Interchange Area Management Plan

Preliminary Alignment Concept

EXISTING CONDITION

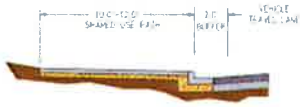
PROPOSED IMPROVEMENTS



TYPICAL SECTION - OVERPASS

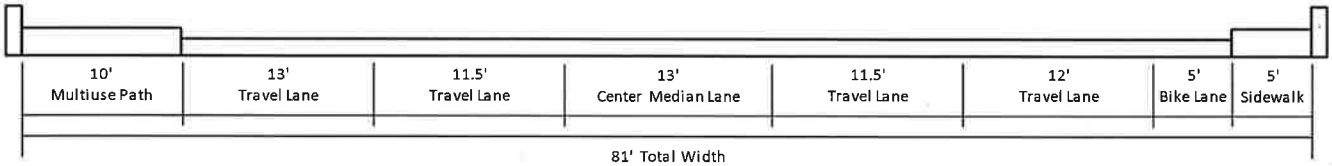
EXISTING CONDITION

PROPOSED IMPROVEMENTS



TYPICAL SECTION - SURFACE STREETS

CROSS-SECTION ON FREEWAY OVERPASS (BRIDGE) WITH PATH ON NORTH SIDE AND SIDEWALK ON SOUTH SIDE



4. MANAGEMENT STRATEGIES

An integral part of the IAMP process is providing an action plan to protect the function of the interchange and its influence area. This discussion explores a set of measures under the heading "management actions" that could be employed at or near I-5 Exit 33. Management actions can extend the life of the interchange and provide for incremental implementation of I-5 Exit 33 improvements, allowing individual components to be funded and built when needed. Given the funding constraints and statewide demand for interchange improvements, it will likely require several years for ODOT and the City of Central Point to develop a funding package and construct all the improvements identified in this IAMP.

4.1. Access Management

Access management is an essential tool for protecting the function of an interchange. In the vicinity of the interchange it includes consideration of access to and from the interchange, maintaining capacity for traffic flow and operations, and safety.

Implementation of access management measures has the effect of protecting the public investment in an interchange and enabling it to accommodate traffic volumes safely and efficiently into the future while ensuring circulation necessary for good access to the freeway. The IAMP acknowledges the vital need of adjacent property owners to maintain roadway access to their businesses and residences. However, a proliferation of driveways and minor street intersections near an interchange multiplies the number of conflicts along a roadway segment, thus reducing the capacity of intersections, increasing the probability of crashes, and generally degrading service for all system users. Hence, the access management plan must balance the competing needs of compatible land uses, private access, and the function of the transportation system.

4.1.1. Access Management Standards

Both ODOT and the City of Central Point have access management standards that apply to the IMSA. The access management standards applicable to this project are summarized in Table 10[9]. These standards are based on the OHP for the interchange, the City of Central Point Transportation System Plan and Development Ordinance for city roadways.

Currently, the existing public street network does not meet the interchange access spacing standards and this IAMP does not include projects that will relocate or close any roadways. However, opportunities to reduce access frequency and/or conflicts on East Pine Street could be pursued by the City of Central Point whenever a public infrastructure or private development project is constructed. ODOT will not permit any new access points on East Pine Street between the I-5 Southbound Ramp Terminal and Peninger Road.

Access control will be needed along East Pine Street for the City Shared Use Path project.

Accesses along East Pine Street East of I-5

[9] Table 10 is the same as Table 2 presented in *Section 2.1.2. Applicable Access Spacing Standards*

Table 10. Access Spacing Standards

Segment Characteristic	Access Spacing Standard
ODOT – Interchange Ramp Terminals - Fully Developed Urban[1]	
Distance from off-ramp to first approach on the right, right-turn movements only	750 feet[2]
Distance from off-ramp to first intersection where left turns are allowed	1320 feet[2]
Distance from last approach road to the start of the taper for the on-ramp	1320 feet[2]
Distance from last right in/right out approach road to the start of the taper for the on-ramp	990 feet[2]
Other Public/Private Access Points	
Central Point – Minor Arterial (west of 10th Street/Freeman Road)	300 feet[3]
Central Point – Major Arterial (10th Street/Freeman Road to Hamrick Road)	400 feet[4,5]
Central Point – Major Arterial (east of Hamrick Road)	500 feet[4,5]

Notes:
1. Fully Developed Urban Interchange Management Area: Occurs when 85% or more of the parcels along the developable frontage area are developed at urban densities and many have driveways connecting to the crossroad. See definition in the Oregon Highway Plan.
2. Table 8: Minimum Spacing Standards Applicable to Freeway Interchanges with Multi-Lane Crossroads, OAR 734-51 Effective June 30, 2014 (Table 17 in the revised OHP.)
3. Table 5.2: Access Management Guidelines, City of Central Point Transportation System Plan.
4. Table 5.1: Access Management Spacing Standards for District Highway and Table 5.2: Access Management Guidelines, City of Central Point Transportation System Plan.
5. Jackson County defers to city standards within an urban growth boundary if the standard is more restrictive.

4.1.2. Access Management Plan

The Access Management Plan for I-5 Exit 33 and East Pine Street from 7th Street to Table Rock Road includes policies and actions that may be triggered as land use changes occur (new development or redevelopment), future improvement projects are implemented, or as safety and operational issues arise. Both ODOT and the City of Central Point have responsibility for implementing the plan.

Access Management Policies

Access management policies for I-5 Exit 33 and East Pine Street include:

- **Policy 1**: Access management techniques shall be applied with a desire to move towards achieving applicable access spacing and sight distance standards over time.
- **Policy 2**: Consolidation, closure, or modification of driveways shall be considered when any of the following conditions are met:
  - *Properties develop or redevelop or related land use applications are submitted.*
  - *Future roadway improvements move into design and construction.*
  - *Operational or safety issues are identified.*
  - *The annual crash rate is 20 percent greater than the statewide rate for similar roadways or a highway segment has an ODOT SPIS rating in the worst 10 percent.*
- **Policy 3**: Turn limitations shall be considered when any of the following conditions are met:
  - *Properties develop or redevelop or related land use applications are submitted.*
  - *Future roadway improvements move into design and construction.*
  - *Operational or safety issues identified.*

- *The annual crash rate is 20 percent greater than the statewide rate for similar roadways or a highway segment has an ODOT SPIS rating in the worst 10 percent.*

- **Policy 4:** Balance access with the economic development of the adjoining parcels while ensuring travel on the highway occurs in a safe and efficient manner.

Access Management Actions

Access management actions are illustrated in Figure 8 and summarized below.

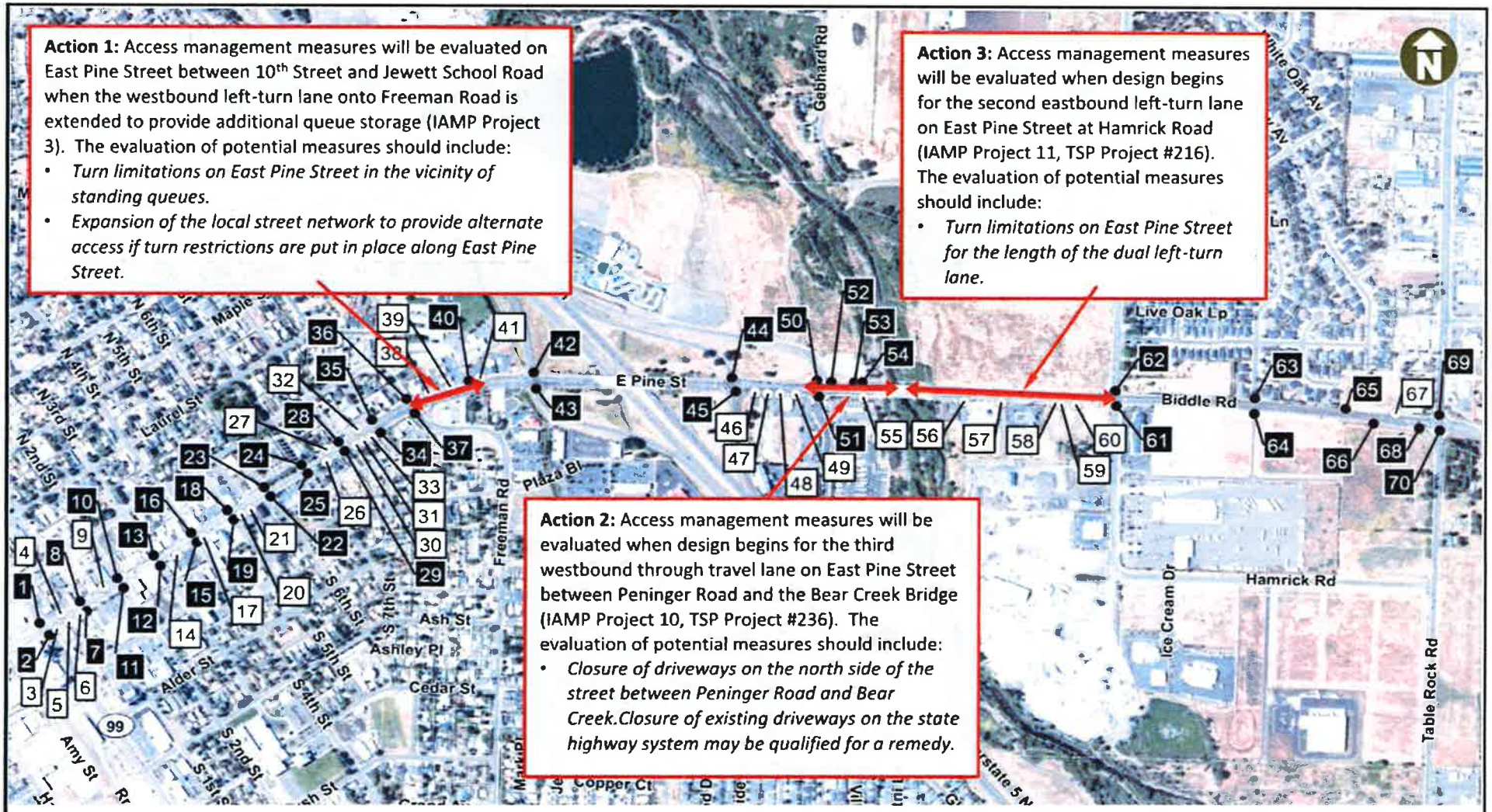
- **Action 1:** Access management measures will be evaluated on East Pine Street between 10th Street and Jewett School Road when the westbound left-turn lane onto Freeman Road is extended to provide additional queue storage (see IAMP Project 3). The evaluation of potential measures should include:
  - *Turn limitations on East Pine Street in the vicinity of standing queues.*
  - *Expansion of the local street network to provide alternate access if turn restrictions are put in place along East Pine Street.*

- **Action 2:** Access management measures will be evaluated when design begins for the third westbound through travel lane on East Pine Street between Peninger Road and the Bear Creek Bridge (see IAMP Project 10, TSP Project #236). The evaluation of potential measures should include:
  - *Closure of driveways on the north side of the street between Peninger Road and Bear Creek. Closure of existing driveways on the state highway system may be qualified for a remedy.*

- **Action 3:** Access management measures will be evaluated when design begins for the second eastbound left-turn lane on East Pine Street at Hamrick Road (see IAMP Project 11, TSP Project #216). The evaluation of potential measures should include:
  - *Turn limitations on East Pine Street for the length of the dual left-turn lane.*

Access management actions in this plan may result in some restrictions or reduction of access for properties along East Pine Street; however, these actions would not prevent properties from being used and developed in a manner consistent with their adopted comprehensive plan designations. Rather, access management will help to ensure that property owners continue are able to utilize site advantages by improving traffic circulation, safety, and mobility.

East Pine Street West of Peninger Road



Interchange Area Management Plan 33

Legend

- Private Access
- Public Access
- # Private Access ID
- # Public Access ID

Source Data: ESRI, Jackson County, Microsoft (2001-12)

Figure 8

Access Management Plan Actions

4.1. Transportation Demand Management

Transportation Demand Management (TDM) measures are designed to reduce vehicle demand, especially for commuter trips in the peak periods. This IAMP supports TDM efforts through expansion of existing bicycle and sidewalk facilities (see Project 6. South Sidewalk between Ramp Terminals and Project 7. Bike Lane Improvements). The IAMP also supports future transit route expansion to East Pine Street but requires that transit stops must not be located where they could impact the safe and efficient operations of the interchange ramp terminals.

The City of Central Point TSP includes a chapter on transportation management. Three of the goals within the chapter specifically address TDM:

Goal 5.3: To reduce the demands placed on the current and future transportation system by the single-occupant vehicle.

Goal 5.4: To reduce the vehicle miles traveled (VMT) in the Central Point urban area by assisting individuals in choosing alternative travel modes.

Goal 5.5: To maintain consistency between Transportation Demand Management (TDM) measures promoted by the City with the Regional Transportation Plan strategies aimed at reducing reliance on the single occupant vehicle (SOV) and reducing vehicle miles traveled (VMT) per capita.

4.2. Transportation System Management

Transportation System Management (TSM) measures are designed to make maximum use of existing transportation facilities. Five specific TSM projects have been included in the planned improvements:

- Project 1. I-5 Southbound Ramp Terminal/East Pine Street TSM – Signal Timing Modifications
- Project 2. I-5 Northbound Ramp Terminal/East Pine Street TSM – Signal Timing Modifications
- Project 3. 10th Street/Freeman Road/East Pine Street TSM – Signal Timing Modifications and Queue Storage
- Project 4. Peninger Road/East Pine Street TSM – Signal Timing Modifications
- Project 5. East Pine Street TSM – Signal Timing Modifications

To support the IAMP projects, the following monitoring actions are needed for the long-term management of the transportation system within the IMSA:

- **Action A:** Monitor southbound off-ramp queuing to ensure that adequate deceleration distance is maintained for traffic exiting the freeway. Implement signal timing modifications identified in TSM Project 1 as necessary. Implement infrastructure Project 8 (I-5 Southbound On-Ramp – Dual Westbound Left-Turn Lanes) if TSM improvements are no longer adequate.
- **Action B:** Monitor northbound off-ramp queuing to ensure that adequate deceleration distance is maintained for traffic exiting the freeway. Implement signal timing modifications identified in TSM Project 2 as necessary. Implement infrastructure Project 9 (I-5 Northbound Ramp Terminal – Dual Right-Turn Lanes) if TSM improvements are no longer adequate.
- **Action C:** Monitor westbound queuing at the intersection of East Pine Street and 10th Street/Freeman Road to ensure that westbound left-turn queuing does not interfere with the through travel lanes and I-5 Southbound ramp terminal operations. Implement signal timing, and lane striping modifications identified in TSM Project 3 and consider access control to manage queuing and maintain safe operations and traffic flow.

- **Action D**: Monitor v/c ratios and queuing at the intersection of East Pine Street and Peninger Road to ensure that intersection operations do not impact the I-5 Northbound ramp terminal operations. Implement signal timing modifications identified in TSM Project 4 to manage queuing and maintain traffic flow. Implement infrastructure Project 10 (Peninger Road/East Pine Street Intersection Improvements) if TSM improvements are no longer adequate.
- **Action E:** Monitor v/c ratios and queuing at intersections along East Pine Street east of the freeway to ensure that intersection operations do not impact the I-5 Northbound ramp terminal. Implement TSM Project 5 to maintain eastbound traffic flow on East Pine Street from the I-5 Northbound Ramp terminal through Peninger Road, the future intersection of Gebhard Road, and Hamrick Road.

The City of Central Point TSP includes a chapter on transportation management. One of the goals within the chapter specifically addresses TSM:

Goal 5.1: To maximize, through transportation system management techniques, the efficiency, safety, and capacity of the City's existing transportation facilities and services.

This goal is consistent with the actions and improvements in this IAMP.

4.3. Development Review/Land Use Management

Vehicle trip generation associated with potential future growth in the region could cause traffic operations at I-5 Exit 33 to exceed ODOT performance targets within the 20-year planning horizon. The intensity, timing and location of actual development may result in more congestion than is estimated in the future year 2038.

Technical Memorandum #1: Definition and Background, Appendix A – Review of Plans and Policies and *Technical Memorandum #2: Existing Conditions Analysis* cite the standards that the IAMP relies on for consistency and implementation and associates them with the applicable IAMP sections.

Substantial Opportunity for Growth near I-5 Exit 33

5. IMPLEMENTATION

Implementation of the I-5 Exit 33 IAMP will need to occur at the local and state level. The plan will be adopted as an amendment to the OHP as a facility plan by the Oregon Transportation Commission. The plan will also be adopted as an amendment to the City of Central Point TSP.

5.1. OHP Policy Statement

Adoption of the OHP is a state responsibility. After the City of Central Point IAMP adoption, the OTC will adopt the I-5 Exit 33 IAMP as a transportation facility plan – an amendment to the OHP, per PLA 01, ODOT Transportation Facility Plan Adoption Process, effective October 12, 2006.

ODOT will continue to coordinate with the City of Central Point and Jackson County as planning documents get updated and amended and during the development review process to ensure the interchange is protected.

5.2. City of Central Point Actions

The City of Central Point will:

- Adopt this IAMP as a refinement plan to its TSP
- Retain, through adoption of the IAMP, current adopted Comprehensive Plan and Land Development Code designations and regulations to ensure that the land uses within the IMSA remain supportive of the function of the interchange. The IAMP assumes that, within the IMSA, Central Point will maintain their:
  - Current land use designations and current uses and densities
  - Plan and code amendment processes
  - Requirements for traffic impact studies
  - Processes for notification to ODOT regarding land use actions that may affect state transportation facilities
- When future land use actions are proposed, continue to coordinate with ODOT to ensure that actions and improvements are consistent with the defined function of the IAMP

Adoption of provisions of the City of Central Point Comprehensive Plan and Land Development Code by reference into this IAMP ensures that there would be no violation of the mobility performance targets for the interchange and related facilities.

5.2.1. City Code and Plan Amendments

Some changes to the City of Central Point Land Development Code and Transportation System Plan are needed to comply with the provisions of the Oregon Transportation Planning Rule (TPR) as codified in OAR 660-012-045, Division 51 and to implement and accompany the IAMP for I-5 Exit 33.

In summary, the revisions provide additional standards to:

- Protect the safety and capacity of the roadway
- Provide notification to ODOT regarding any potential affects to the state transportation system throughout the development review cycle
- Provide additional access management standards
- Protect the function of the interchange and East Pine Street as specified in the Oregon Highway Plan (OHP), RVMPO Regional Transportation Plan, and City of Central Point Transportation System Plan
- Improve safety and maximize operational efficiency of the freeway and interchange to address existing and future needs

Specific code and plan recommendations are presented in *Technical Memorandum #9: Recommended Code and Plan Amendments.*

5.3. Future Interchange Design Changes

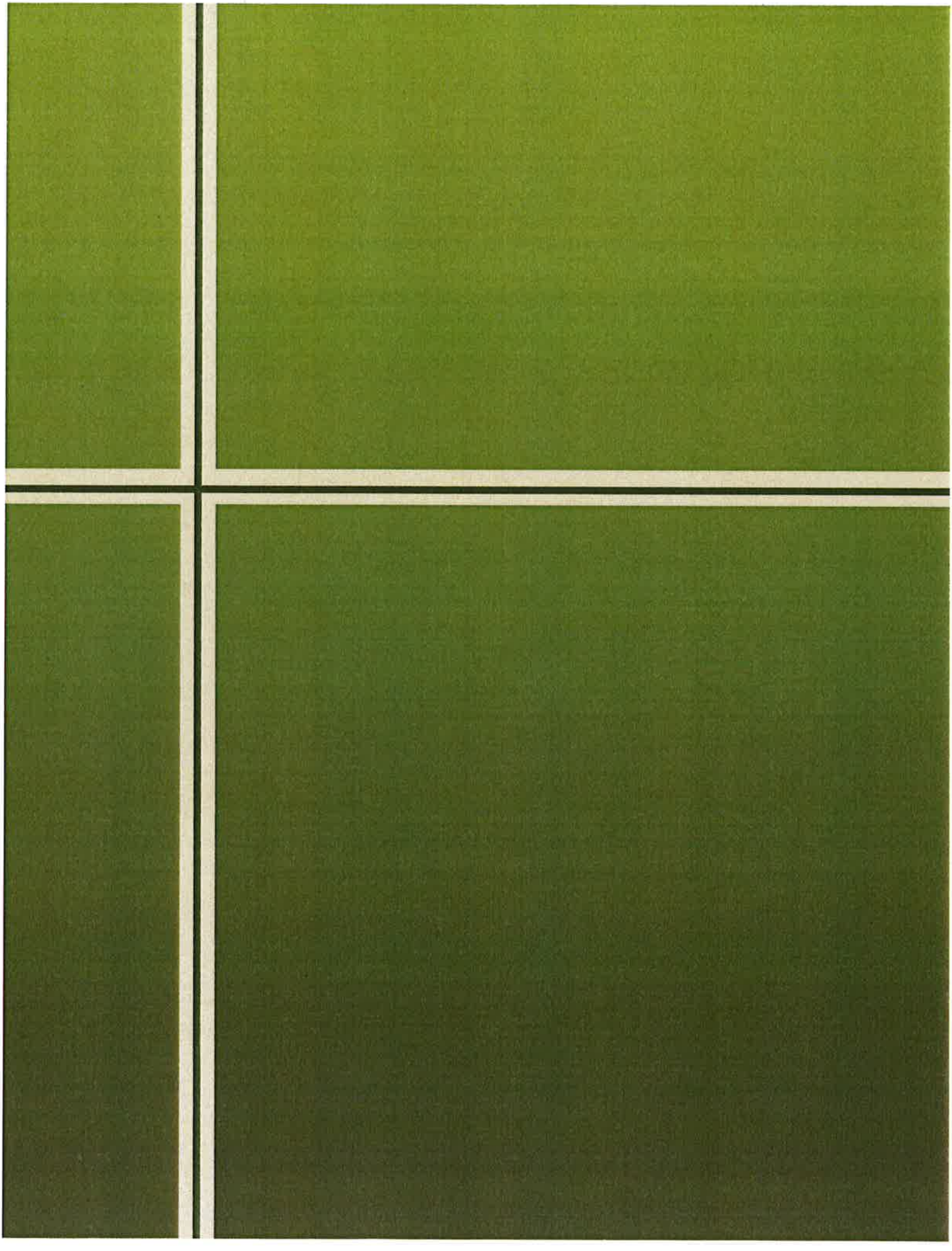
If an alternative interchange design is proposed in the future, the IAMP would need to be updated and amended. Additional measures would need to be considered, and City of Central Point amendments may be needed.

If future changes of other circumstances within the IMSA result in the need for changes to the IAMP, ODOT and the City shall jointly prepare amendments to the IAMP management actions and an accompanying funding plan to implement those actions.

5.4. Project Funding

None of the projects listed in Table 8 currently has identified funding sources. Funding for plan projects is anticipated to come from a variety of public and private sources as projects develop during the planning period.

5.4.1. Funding Disclosure

The inclusion of an improvement in the I-5 Exit 33 IAMP does not represent a commitment by ODOT to fund, allow, or construct the project. Projects on the state facilities are not considered "planned" projects until they are programmed into the Statewide Transportation Improvement Program (STIP). As such, local governments and/or private developers cannot rely upon the projects proposed in the IAMP to mitigate significant traffic effects unless they are programmed into the STIP, or a local Capital Improvement Program (CIP), or funded privately though a Cooperative Improvement Agreement (CIA) with ODOT. Highway projects that are programmed in the STIP to be constructed may have to be altered or cancelled at a later time to meet changing budgets or unanticipated conditions such as environmental constraints.

I-5 Looking northbound at Exit 33