

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR JOSEPHINE COUNTY
STATE OF OREGON**

ORDINANCE NO. 2012-004

**IN THE MATTER OF AN AMENDMENT TO THE TRANSPORTATION SYSTEM
PLAN, AN ELEMENT OF THE COMPREHENSIVE PLAN, ADOPTING THE I-5
INTERCHANGE 61 (LOUSE CREEK) INTERCHANGE AREA MANAGEMENT PLAN
(IAMP)**

WHEREAS, the Oregon Department of Transportation (ODOT) requested amendment to the Transportation System Plan, an element of the Josephine County Comprehensive Plan; and

WHEREAS, the Planning Commission, pursuant to the review authority granted in Section 46.020 of the RLDC, and Goal 11, Policy 1, of the Josephine County Goals and Policies of the Comprehensive Plan, conducted a public hearing on September 17, 2012 regarding the proposed text amendment, after required notice by publication, community advertisement, and mailing to property owners within the I-5 Interchange 61 IAMP area, interested agencies and organizations; and

WHEREAS, after due consideration of the proposed amendments and the testimony and evidence from those participating at the hearing, the Planning Commission concluded by a vote of 7-0 to approve the amendments; and

WHEREAS, written findings of approval were prepared, approved, and signed by the Planning Commission Chair on October 31, 2012, which findings have been entered into the official record of the proceedings kept by the Planning Director; and

WHEREAS, notice of the Planning Commission's decision was given as required by law, and the decision having now become final without appeal; and

WHEREAS, the Josephine County Board of Commissioners, upon review of the record of the Planning Commission proceedings and the written Findings of Approval, and after discussing these matters with the Josephine County Planning Director, find the approved text amendment advances the policies and purposes of the Josephine County Comprehensive Plan; and

WHEREAS, the authority to implement legislative amendments to the county's comprehensive plan by ordinance resides solely with the Board of Commissioners, as specified in Goal 11, Policy 1.D[2], and the RLDC, Section 46.020.B.2;

NOW, THEREFORE, based upon all of the foregoing recitals, the Board does hereby adopt the I-5 Interchange 61 (Louse Creek) Interchange Area Management Plan, Volumes I and II as an amendment to the Josephine County Transportation System Plan, an element of the Comprehensive

Plan, depicted in the attached *Exhibit A* and *Exhibit B*.

Section 2. Affirmation

Except as specifically amended by the provisions of this Ordinance, the Comprehensive Plan (Ordinance 81-11) is hereby affirmed in all other respects.

Section 3. Effective Date:

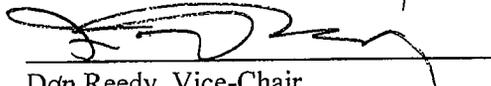
First reading by the Board of County Commissioners this 21st day of November, 2012.

Second reading and adoption by the Board of County Commissioners at least thirteen (13) days from the first reading this 19th day of December, 2012. This Ordinance shall take effect ninety (90) days after its adoption by the Board of County Commissioners.

JOSEPHINE COUNTY BOARD OF COUNTY COMMISSIONERS:



Simon Hare, Chair

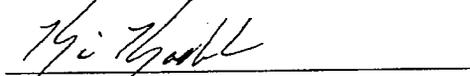


Don Reedy, Vice-Chair

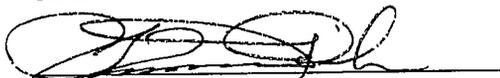


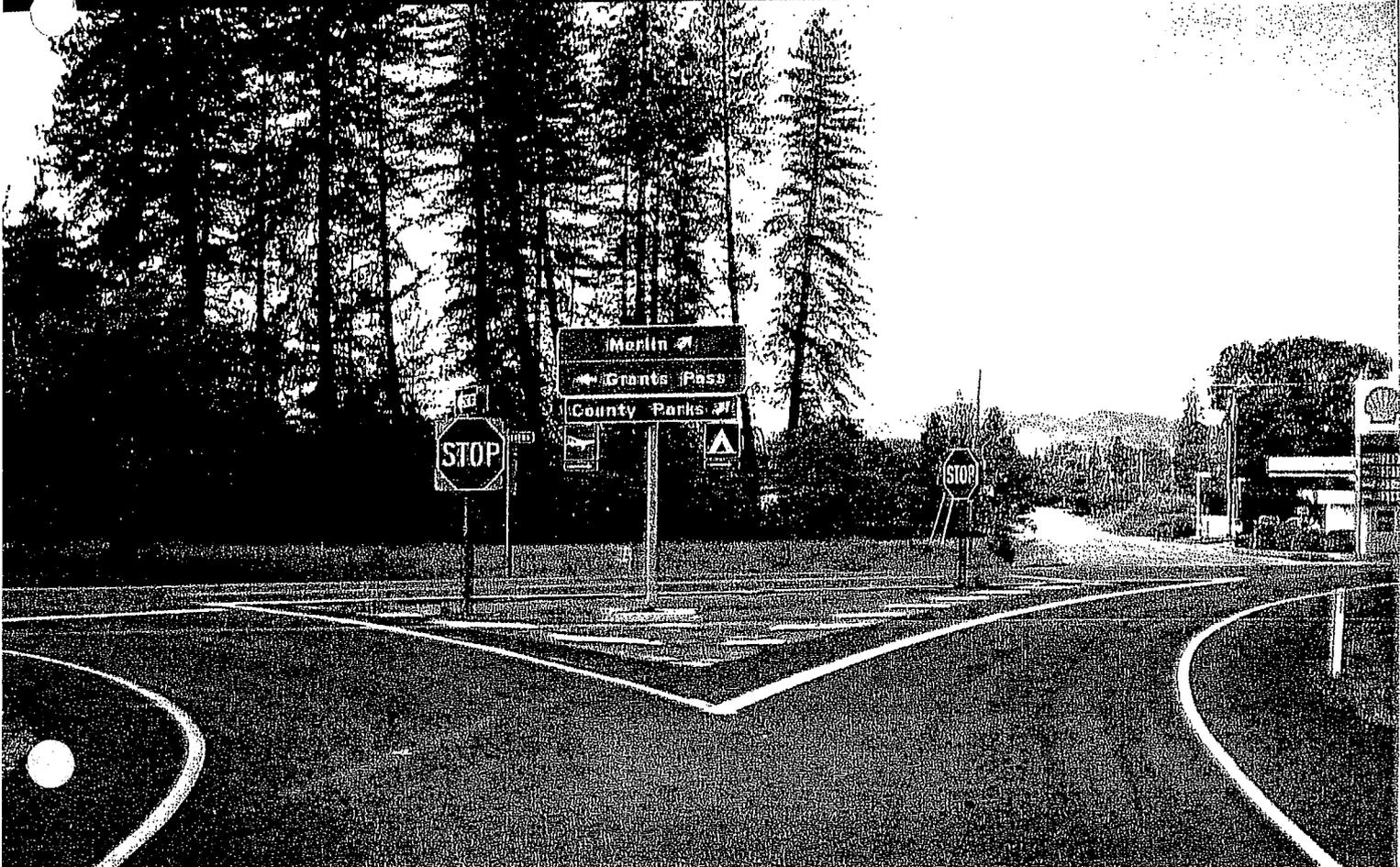
Harold Haugen, Commissioner

ATTEST:


Recording Secretary

APPROVED AS TO FORM:


Steven E. Rich, Legal Counsel



I-5 Interchange 61 (Louse Creek) Interchange Area Management Plan Volume 1

Prepared by:



DAVID EVANS
AND ASSOCIATES, INC.

Prepared for:

Oregon Department of
Transportation



EXHIBIT

SEPTEMBER 2012

**I-5 Interchange 61 (Louse Creek)
Josephine County**

Interchange Area Management Plan

Prepared for

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September 2012

ACKNOWLEDGMENTS

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1. INTRODUCTION

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

Interchange Function

Interchange 61 (Louse Creek) is a rural interchange that serves areas in northern Josephine County, including the nearby community of Merlin, approximately four miles north of Grants Pass. I-5 is classified as an interstate highway and a designated freight route, and is on the National Highway System. The primary function of the interstate highway is to serve interregional and interstate passenger and freight traffic. Merlin Road is a county-designated Rural Major Collector that provides these outlying areas with direct access to I-5. The intended function of the Louse Creek Interchange is to safely and efficiently accommodate traffic demands generated by residential, commercial, industrial, and other uses in the region.

Problem Statement

Interchange 61 is an unusual three-quarter diamond with folded southbound exit ramp configuration with traffic, design, and access issues. Merlin Road crosses under I-5 in an east-west direction. The southbound ramps are part of a rural major collector, Monument Drive, subject to direct access from Camp Joy Road and multiple driveways. The southbound ramp/Monument Drive is bi-directional from the intersection of Camp Joy Road north to the signalized intersection of Merlin Road at Monument Drive. Highland Avenue parallels I-5 on the east side. It provides access to the interchange and surrounding development, and a connection to Grants Pass, which is located four miles south of the interchange. Northbound-to-westbound traffic from Highland Avenue onto Merlin Road is not stop controlled, while the I-5 northbound off-ramp intersection with Merlin Road has a stop sign. Section 2 of this Plan provides a map of identified Baseline issues (see Figure 5, on page 15).

Issues and concerns are distinct for the east and west sides of the interchange because of the different ramp and roadway configurations and the adjacent land use characteristics. The major issues on the east side of I-5 are related to the proximity of the northbound ramps and the nearby frontage road, Highland Avenue, and resulting traffic conflicts including:

- Highland Avenue is too close to the I-5 northbound ramps (approximately 75 feet). ODOT standards call for 1,320-foot spacing.
- Highland Avenue is a high speed facility (posted for 50 miles per hour [mph]) and has no stop control for traffic heading northbound to westbound onto Merlin Road.
- Traffic from the northbound off-ramp backs up onto the I-5 mainline during the PM peak hour.
- Vehicles turning left at the I-5 northbound ramps can conflict with traffic coming from Highland Avenue, with limited reaction time available.

Major issues on the west side of the interchange center on the southbound off-ramp, land use and access issues, and congestion. I-5 southbound ramp issues include:

- The I-5 southbound off-ramp is sharp and short, with a deceleration lane of less than 200 feet provided for slowing down. The sharp curves can be difficult for heavy vehicles to maneuver.
- The I-5 southbound off-ramp intersection with Monument Drive is unconventional and may confuse drivers.
- Monument Drive south of Merlin Road acts as the I-5 southbound on-ramp as well as a rural major collector with local access.

Major issues around land use, access, and safety include:

- There are many accesses on Monument Drive, which acts as the I-5 southbound on-ramp, part of the I-5 southbound off-ramp, and a collector street:
 - Driveways (some with open frontage);
 - Camp Joy Road;
 - Monument Drive southern access near freeway; and
 - Many undeveloped/underdeveloped commercially zoned lots that could be developed.
- Driveways on Merlin Road are too close to the Monument Drive/Merlin Road intersection.
- Future development could further affect the roadways and intersections.

Congestion issues related to the Merlin Road/Monument Drive intersection include:

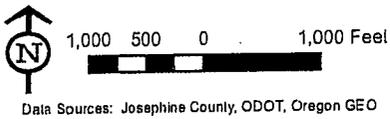
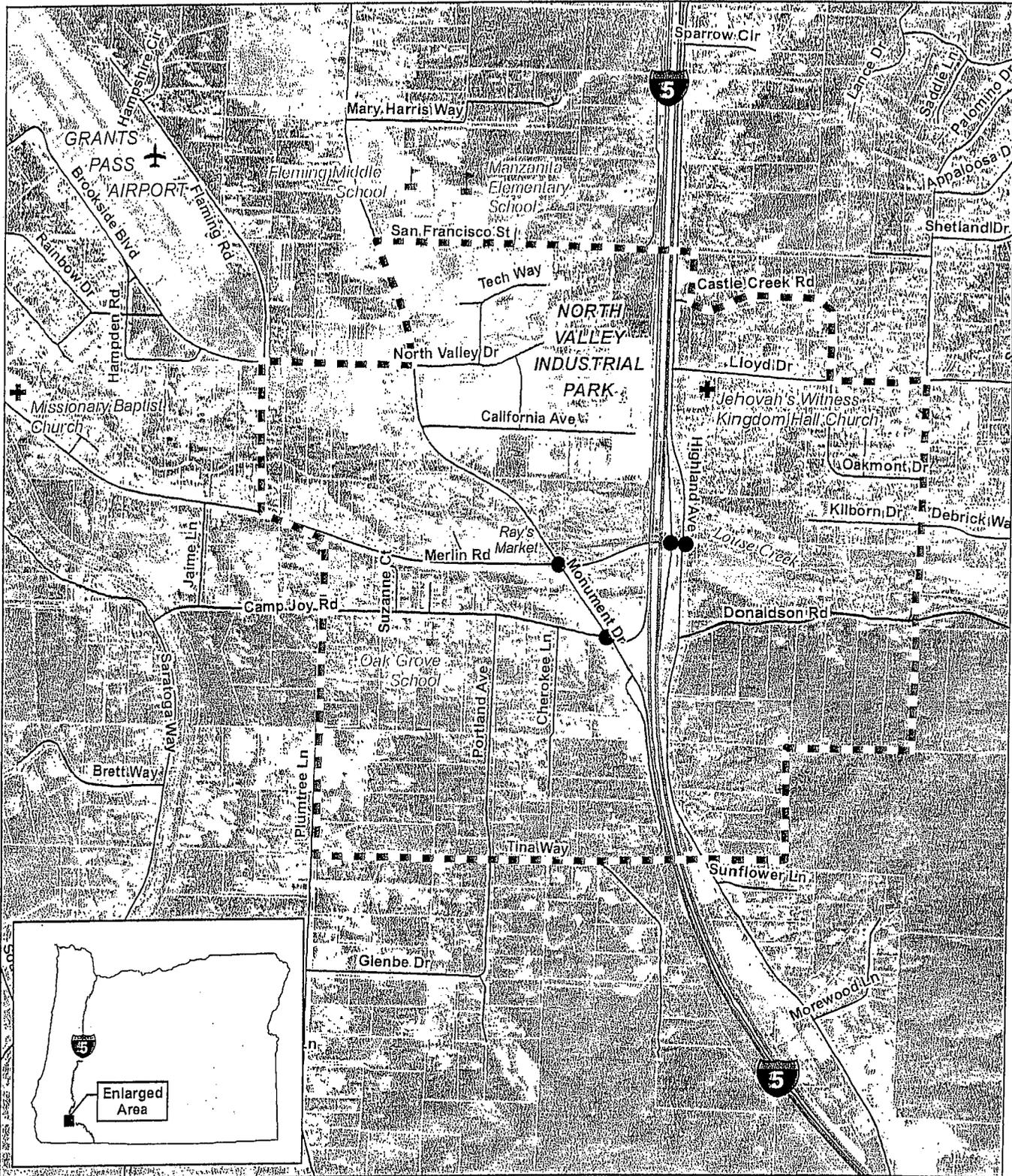
- The intersection does not meet operational standards today and will get worse with higher volumes in 2034.
- Safety issues exist with left turns.

Traffic is expected to increase over time with growth in residential and employment uses in the area. The issues identified here will worsen with increased traffic volumes.

IAMP Planning Area

The IAMP area delineates the vicinity in which transportation facilities, land uses, and approaches may affect operations at the interchange. This planning area is referred to as the Interchange Management Area. As shown in Figure 1, the management area generally encompasses properties within one-half mile of the interchange and includes the existing interchange, the immediately surrounding area where potential reconfiguration of existing ramps could occur, commercial/industrial properties northwest of the interchange, and largely undeveloped properties along the remaining three quadrants of the interchange.

Situated entirely within unincorporated Josephine County, the planning area boundary is roughly defined by Plumtree Lane and Monument Drive to the west, San Francisco Street and Castle Creek Road to the north, Soldier Creek Road to the east, and Tina Way to the south.



Data Sources: Josephine County, ODOT, Oregon GEO

Map Prepared By:



Legend

- Interchange Management Area
 - Study Intersections
 - Church
 - School
- * Taxlot boundaries indicated in white

Figure 1

IAMP Interchange Management Area and Vicinity

Interchange 61 (Josephine County)
Interchange Area Management Plan

IAMP Goals and Objectives

The goals of the IAMP are to develop a plan for improvements that can be implemented over time to:

- Improve safety and operations of the Louse Creek Interchange.
- Protect the investment in I-5 and the interchange and maintain the function of the interchange.
- Provide better accessibility to the unincorporated Merlin community consistent with the adopted local comprehensive land use and transportation plans.
- Enable reconfiguring of northbound and southbound interchange ramps that will meet ODOT design and access spacing standards.

The objectives of the IAMP are to:

- Develop concepts to improve safety and maximize operational efficiency of the freeway and interchange along with the surrounding roadways to address existing and future needs.
- Evaluate the need for capacity improvements based on the adopted comprehensive land use plans of Josephine County, the Josephine County Transportation System Plan, the Oregon Highway Plan (OHP), the Highway Design Manual (HDM), and the appropriate operational standards.
- Develop an access management plan that provides for safe and acceptable operations on the transportation network, and that meets OHP requirements and access spacing standards specified in OAR 734-051.

Planning Process

The IAMP for Interchange 61 was developed through a series of technical analyses combined with a public involvement process.

Key elements of the process include:

- Evaluation of baseline conditions, such as existing and future traffic operations, environmental constraints, land use designations, and community facilities (Chapter 2)
- Alternatives development and evaluation (Chapter 3)
- Creation of the IAMP including access management and local system improvements (Chapter 4)
- Implementation measures (Chapter 5)

This document provides a summary of each of these elements. A second volume provides the detailed analysis and supporting documentation that led to the development of the plan.

Public involvement included four technical advisory committee (TAC) meetings and two public open houses. The TAC was composed of representatives from Josephine County and ODOT. The TAC meetings and open houses included graphic presentations and facilitated discussion to

solicit public and stakeholder input. The public open houses occurred on May 27, 2010 and June 15, 2011 at the Merlin Community Center (100 Acorn Street in Merlin, Oregon). They were advertised on the ODOT Region 3 website, Josephine County website, and the local newspaper. Summaries of these proceedings are included in the Public Involvement Section of Volume 2 of this IAMP.

2: EVALUATION OF BASELINE CONDITIONS

This section summarizes baseline conditions in the IAMP planning area including an overview of the regulatory framework that guides the process. Land use within the management area is presented and potential land use or environmental constraints are identified. Existing transportation system and traffic conditions in the management area are evaluated to identify deficiencies. Future traffic operations and safety are then assessed to determine how conditions may worsen. (Detailed discussions of existing and future baseline conditions are contained in Tech. Memo #3 within Volume 2 of this IAMP).

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 code language contained within these documents provides guidance to the state and local jurisdictions on how to manage transportation facilities and land uses in the interchange management area to protect the interchange function, provide for safe and efficient operations, and minimize the need and expense for making major improvement to the interchange through the 2034 planning horizon.

The interstate and interchange function as designated by ODOT and the Federal Highway Administration (FHWA), the operational standards for interchange area roadway facilities designated by ODOT and Josephine County, and the access management standards designated by ODOT are all discussed below. (For more information, refer to the summary description of all relevant plans and policies included in Tech. Memo #1 within Volume 2 of this IAMP.)

Operational Standards

The Oregon Highway Plan (OHP)¹ has established several policies that enforce general objectives and approaches for maintaining highway mobility. Of these policies, the Highway Mobility Standards (Policy 1F) establish maximum standards for peak hour operating conditions for all highways in Oregon based on the location and classification of the highway segment being examined. These standards are based on the volume-to-capacity (v/c) ratio where volume is the traffic demand and capacity is maximum throughput. The OHP policy also specifies that the v/c ratio standards be maintained for ODOT facilities through a 20-year horizon.

The applicable standard for the freeway (I-5) is a maximum v/c ratio of 0.70 but the freeway ramps are guided by requirements of the intersecting roadway system. The Interchange 61 ramps do not intersect with another state highway although state functional classification maps denote segments of Merlin Road and Monument Drive (both Josephine County roads) as under state jurisdiction in the area adjacent to the ramps. The operational standards used in the interchange management area assume that these county roads are the equivalent of a district highway, which has a v/c ratio standard of 0.80 in unincorporated areas.

¹ Table 6: Maximum volume to capacity ratios for peak hour operating conditions, 1999 Oregon Highway Plan, Amendment 05-16, Oregon Department of Transportation.

Although ODOT's OHP Highway Mobility Standards are the overriding operations standards for Oregon highways, Josephine County uses level of service (LOS), a widely accepted descriptor of traffic operations (based on delay) that uses a six-level grading system with LOS A indicating best performance and LOS F indicating failing conditions. The Josephine County Transportation System Plan designates the standard on county facilities as LOS D or better and defers to ODOT standards for intersections with state highways within the county.

Applicable Access Management Standards

Managing access to the roadway system around the interchange protects the public investment in the interchange facilities, thus the OHP devotes an entire section² to the discussion of access management for state facilities and the surrounding roadways. More detailed requirements, actions definitions, 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 Medians³. Ideally a project will include provisions by which access within the project limits can be made fully compliant with Division 51. In many instances, however, access needed for existing development will not allow these standards to be met. When the requirements and standards cannot be met, progress toward meeting the applicable standards must be demonstrated.

Interchange 61 is located in a rural area and thus is subject to the rural spacing standards. On the freeway, the desired spacing between interchanges (ramp-to-ramp) is 2 miles. On the intersecting roadway, the desired spacing between the interchange ramps and the next closest access is ¼ mile (1,320 feet). Private accesses (driveways) are generally subject to the same spacing standards as public accesses, with exceptions for those grandfathered in (legally constructed prior to 1949) or where a right of access has been given through a reservation of access or a grant of access.

Land Use

Existing and planned land uses affect traffic patterns and the operations of transportation facilities.

Existing Land Uses

Land use in the immediate vicinity of Interchange 61 is mostly retail commercial with some low density residential and large areas of undeveloped parcels. Within the larger management area, land uses are predominantly rural residential, retail, and sparsely scattered industrial. Major community resources in and around the area include schools, churches, a fire station, and the Grants Pass Airport.

² Appendix C: Access Management Standards, 1999 Oregon Highway Plan, Technical Amendment 06 - 21 to include changes adopted as Amendments 04 - 13 and 05 - 16, Oregon Department of Transportation.

³ A complete copy of Division 51 can be found online at:
http://www.oregon.gov/ODOT/HWY/ACCESSMGT/docs/DIVISION_51.pdf

Properties directly east of I-5 in the management area are mostly rural residential, except for a small portion on the southern edge of the management area, which is rural commercial. No development directly abuts the interchange to the east. Much of the terrain in the southeast quadrant of the interchange area south of Donaldson Road and east of I-5 is steep, possibly limiting future development in that area.

Existing Land Use Designations and Zoning

Comprehensive plan land use designations (shown in Figure 2) are rural residential, commercial, and industrial, while zoning designations (shown in Figure 3) are rural residential, community residential, community commercial, community light industrial park, and rural commercial. The west side of I-5 is mostly commercial and industrial designated land uses. Commercial properties are predominant adjacent to the interchange and west of Monument Drive, where the area transitions into residential designated land uses further west. Northwest of the interchange, commercial properties change to industrial designated land uses. The Grants Pass Airport touches the northwestern edge of the management area. The North Valley Industrial Park is located between California Avenue and San Francisco Streets northwest of the interchange.

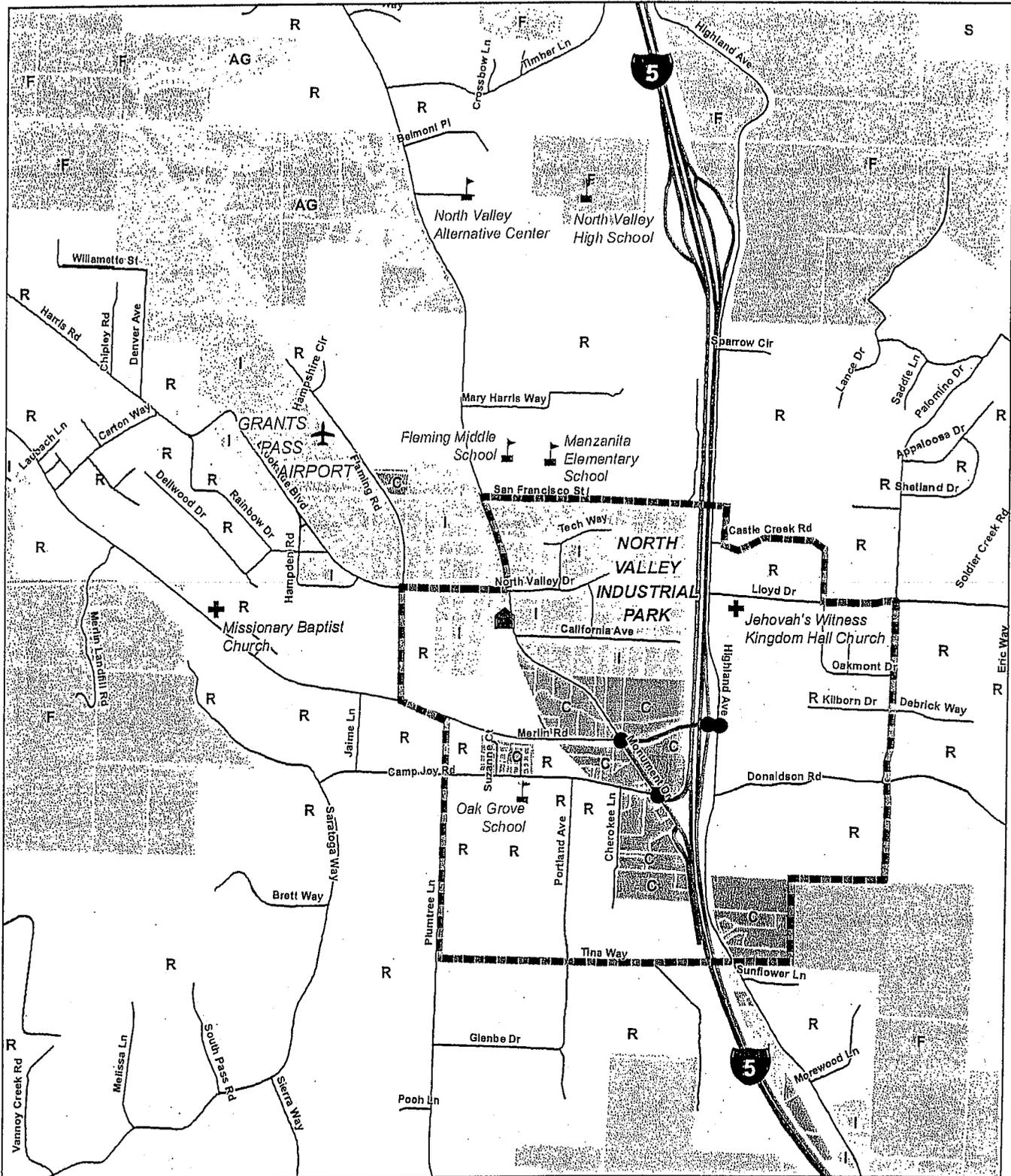
Future Josephine County Land Use

No significant development is expected east of I-5 in the management area. Development is constrained by multiple factors that include floodplain and associated wetlands, terrain, and zoning. Furthermore, the zoning east of I-5 is rural-based zoning – either rural residential or rural commercial – and is intended to preserve the rural character of the area. Thus, no changes or very limited changes to land use patterns are anticipated east of I-5 in the management area.

West of I-5 in the management area, incremental development is anticipated because of the availability of vacant or underused lots with commercial or industrial zoning. Industrial development will likely occur northwest of the interchange, extending from I-5 to the Grants Pass Airport as an expansion of the North Valley Industrial Park. Industrial employment growth is also anticipated near the Grants Pass Airport.

Commercial development could occur near the interchange where there are several undeveloped or underdeveloped parcels zoned for commercial development (CC). Commercial development here could create safety or operational issues because of its proximity to I-5 and the ramps. The Josephine County Rural Development Code appears to have adequate provisions in place that would prohibit development that would be problematic to the transportation system. However, much of the development approval process includes language that allows the Planning Director to use discretion as appropriate. Development of some parcels may be limited due to their proximity to Louse Creek and the related floodplain regulations regarding additional building setbacks.

Further building constraints in the area include rural residential zoning with a 5-acre minimum zoning in the southwest portion of the management area and community residential zoning with a 2-acre minimum along Merlin Road west of Monument Drive.



1,000 500 0 1,000 Feet

Data Sources: Josephine County, ODOT, Oregon GEO

Map Prepared By:



Legend

- Proposed Management Area
- Study Intersections
- Church
- Fire Station
- School

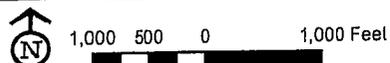
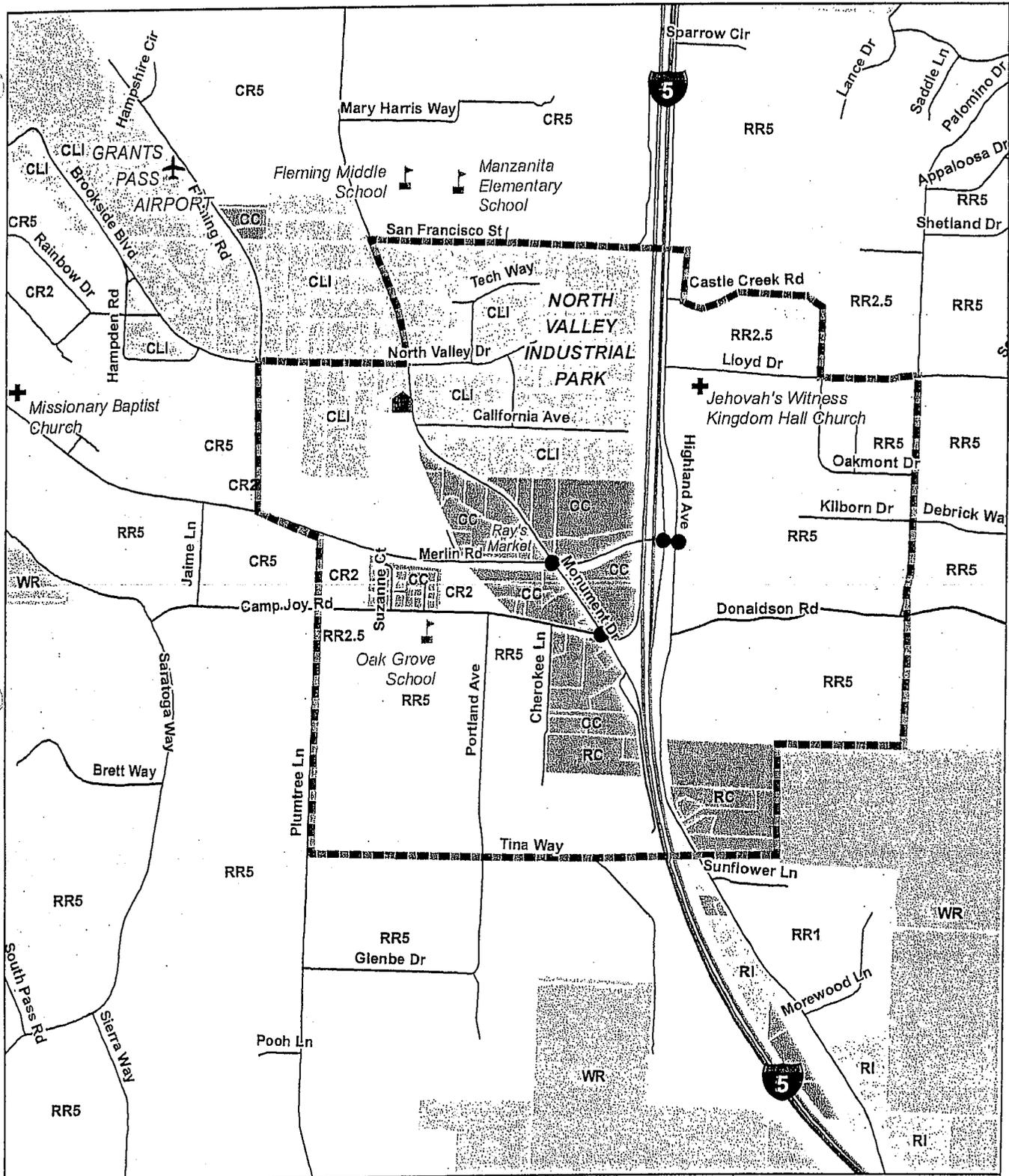
County Comprehensive Plan Designations (2005)

- Agriculture/Forest
- Commercial
- Industrial
- Residential

* Taxlot boundaries indicated in white

Figure 2
Comprehensive Plan Designations (2005)

Interchange 61 (Josephine County) Interchange Area Management Plan



Data Sources: Josephine County, ODOT, Oregon GEO

Map Prepared By:



Legend

- Interchange Management Area
- Study Intersections
- Church
- Fire Station
- School

County Land Use Designations

- Agriculture/Forest
- Commercial
- Industrial
- Low Density Residential

* Taxlot boundaries indicated in white

Figure 3

Zoning Classifications and Land Uses

Interchange 61 (Josephine County) Interchange Area Management Plan

Environmental, Community, and Cultural Resources

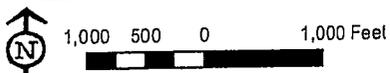
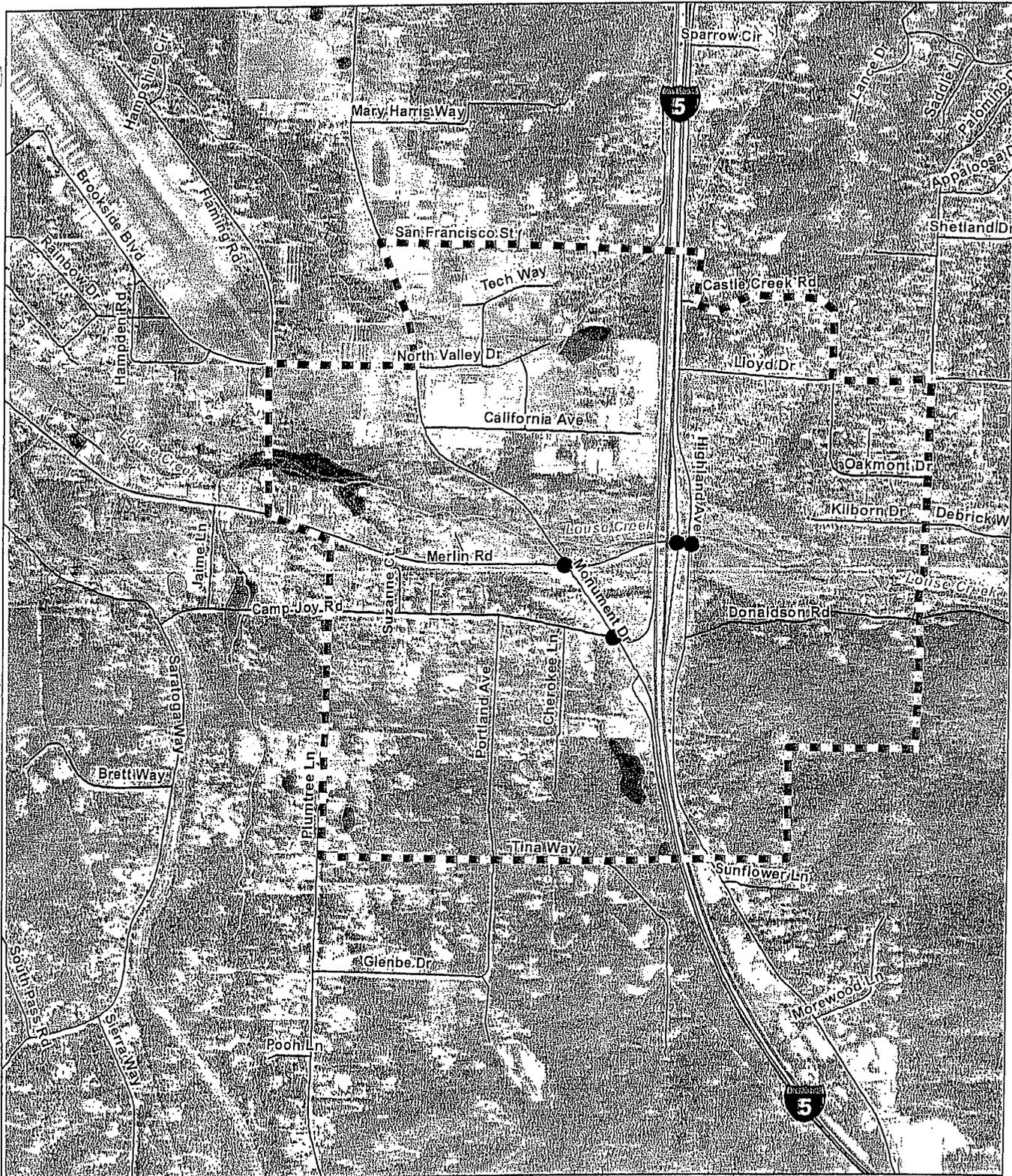
Reconnaissance was performed to understand existing environmental, community, and cultural resource issues to help inform the process of developing conceptual alternatives. The reconnaissance addressed the following resources:

- Natural resources such as riparian corridors, wetlands, wildlife habitat, and recreation trails
- Wildlife crossings and threatened and endangered species
- Floodplains and floodways
- Air and noise quality
- Hazardous materials
- Visual resources
- Parks and recreation areas
- Historical and Archaeological Resources
- Section 4(f) and 6(f) resources

Those resources that present major constraints in the planning area are discussed below.

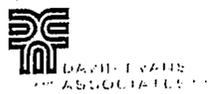
Louse Creek runs east-west through the middle of the management area north of Merlin Road and constrains development in its vicinity (see Figure 4). The creek and its associated wetlands are recognized as Goal 5 resources by Josephine County. Flood hazard areas have been mapped north of the Monument Drive/Merlin Road intersection and northwest of the Jaime Lane/Merlin Road intersection, and threatened species and species of concern have been identified in the management area.

No historic or cultural resources have been identified in or near the management area. The State Historic Preservation Office does not list any historic properties, and although surveys have not encompassed the entire management area, no cultural resources of concern have been found.



Data Sources: Josephine County, ODOT, Oregon GEO

Map Prepared By:



Legend

- Interchange Management Area
- Study Intersections
- Rivers/Streams
- Flood Hazard Area (100 Year Floodplain)

Wetlands

- Cowardin Class*
- Palustrine Emergent
 - Palustrine Forested
 - Palustrine Open Water
 - Palustrine Scrub-Shrub
 - Riverine Upper Perennial

Figure 4

Natural Resources

Interchange 61 (Josephine County)
Interchange Area Management Plan

Baseline Transportation Evaluation

Interchange 61 is a three-quarter diamond configuration with a folded southbound exit ramp. It includes two I-5 bridges that overpass Merlin Road. Each bridge is the standard two-lane, one-way configuration, with one bridge going northbound and the other southbound. Both bridges were recently replaced because of structural deficiencies and were completed in mid-2010. Limited to the I-5 mainline, the new bridges maintain the configuration of the previous bridges and did not reconfigure existing ramps, terminals, or the surrounding roadway network.

Roadway Inventory

The roadways within the Louse Creek Interchange management area are largely rural in nature, with no sidewalks or marked bike lanes. In addition to I-5, the primary roadways in the management area include Merlin Road, Monument Road, Highland Avenue, and Camp Joy Road. Table 1 presents an inventory of management area roadways and their general characteristics.

Merlin Road crosses under I-5 in an east-west direction from Highland Avenue to west of the management area. Highland Avenue parallels I-5 on the east side, providing access to the interchange and surrounding development, and a connection to Grants Pass, located four miles south of the interchange. The southbound entrance ramp has a connection with Camp Joy Road, which is a frontage road to residential development on the west side of the interchange. The entrance ramp is also bi-directional from the intersection of Camp Joy Road to the signalized intersection of Merlin Road at Monument Drive. Monument Drive is a north-south route, on the west side of I-5, which transitions from a collector roadway within the study area.

Table 1. Management Area Roadway Inventory

Roadway/ Highway Name	Jurisdiction	ODOT Functional Classification	County Functional Classification	Posted Speed (mph)	No. of lanes
I-5 (Pacific Highway)	ODOT	Interstate Hwy, NHS, FR, TR ¹	-	65	4
I-5 Ramps	ODOT	Interstate Hwy, NHS, FR, TR ¹	-	-	1
Merlin Road	ODOT/ Josephine County	District Highway ²	Rural Major Collector	55 ⁵	2
Monument Road	ODOT/ Josephine County	Interstate Ramp ³	Rural Major Collector	40 ⁴	2
Highland Avenue	Josephine County	-	Minor Collector	50 ⁵	2
Camp Joy Road	Josephine County	-	Minor Collector	50 ⁵	2

Notes:

1. Oregon Highway Plan (OHP) acronyms - NHS: National Highway System; FR: Freight Route; TR: Truck Route
2. The state functional classification maps denote Merlin Road as under state jurisdiction between Monument Drive and Highland Avenue, but there is no state highway at this interchange; therefore, Merlin Road is assumed to be the equivalent of a district highway.
3. The state functional classification maps denote Monument Drive as an interstate ramp south of Merlin Road.
4. Posted as 40 mph north of Merlin Road between September 1 and June 15. South of Merlin, the speed is not posted.
5. No speed posted on these roadway sections; speed in table reflects default speeds based on functional classification.

Current Conditions

This section provides existing (2009) AM and PM peak hour traffic analysis results. Intersection and freeway merge/diverge operations are presented, as well as safety issues. Figure 5 provides a summary of issues identified for future baseline conditions.

Traffic Volume Development

Traffic counts were conducted and seasonally adjusted to correspond to traffic volumes that are seen in the peak month, which is observed in July or August. The ODOT Transportation Planning Analysis Unit (TPAU) procedures were followed. After peak hour count data was seasonally adjusted, volumes were balanced to achieve a uniform dataset for analysis. Volume development worksheets are provided in Tech. Memo #2 within Volume 2 of this IAMP.

Existing Intersection Operations

Table 2 and shows the analysis results for all management area intersections, and Figure 6 shows both operations and lane configurations.

Table 2. Existing (2009) AM & PM Peak Hour Traffic Operations Analysis Results

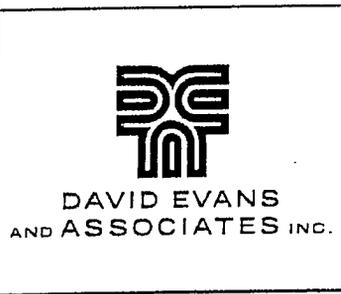
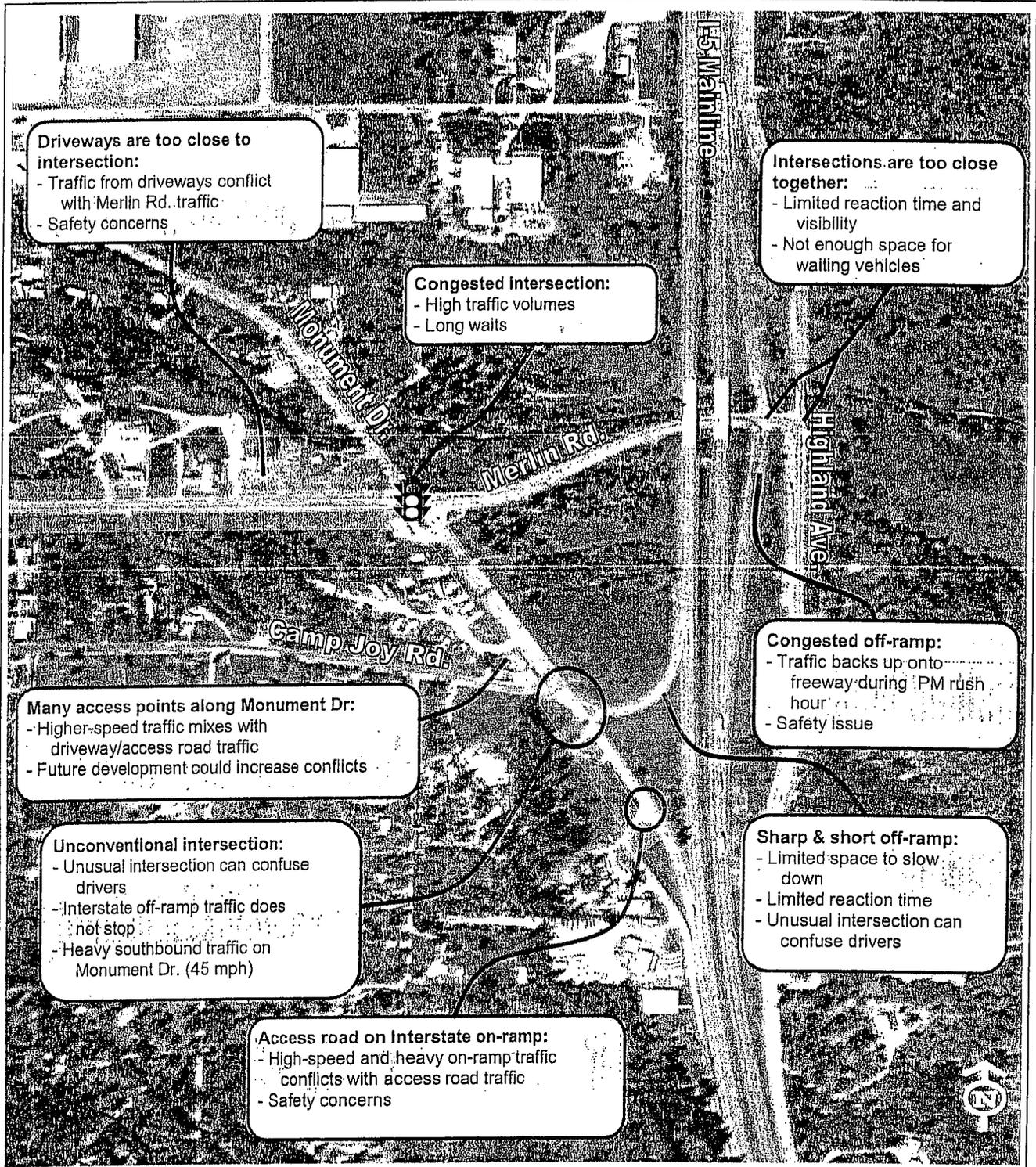
Intersection	Direction & Movement ¹	AM Peak Hour		PM Peak Hour		Operational Standards	
		V/C Ratio	LOS	V/C Ratio	LOS	OHP ²	County
1 Merlin Rd/Monument Dr (Signalized)	Overall	0.37	D	0.75	C	0.85	LOS D
2 Merlin Rd/I-5 Northbound Ramps	NB L/T/R	1.03	F	0.94	F	0.85	-
3 Merlin Rd/Highland Ave	EB L/R	1.54	F	0.28	B	0.85	LOS D
4 Monument Dr/I-5 Southbound Ramps/Camp Joy Rd ⁷	EB L/R	-	-	0.15	B	0.85	LOS D
	SB T/R	0.32	A	-	-		

Notes:

- At the signalized intersections, the overall results are reported, while at unsignalized intersections the results are only reported for the stop or yield movement with the highest v/c ratio. EB = eastbound; WB = westbound; NB = northbound; and SB = southbound. L = left; T = through; and R = right.
- 1999 Oregon Highway Plan (OHP), Policy 1F applies to existing and Baseline conditions through the planning horizon.

Source: David Evans and Associates, Inc.

Analysis for the AM peak hour shows that three intersections currently exceed applicable maximum operational standards. At the signalized intersection of Merlin Road and Monument Drive, the overall intersection v/c ratio exceeds the OHP standard. At the unsignalized intersection of Merlin Road and the northbound I-5 ramps, the northbound (off-ramp) approach exceeds the ODOT mobility standard with a v/c ratio of 1.03. Results show LOS F conditions, but average delays are closer to half a minute. The intersection of Merlin Road and Highland Avenue (immediately adjacent to the northbound ramp terminal) operates with a critical v/c ratio of 1.54, well in excess of the operational standard. Although traffic volumes at this location are not extremely high at this location, a large percentage of peak hour traffic travels during the peak 15 minutes, which results in this high v/c ratio.



Legend

Issue:



Perceived issue for Baseline conditions

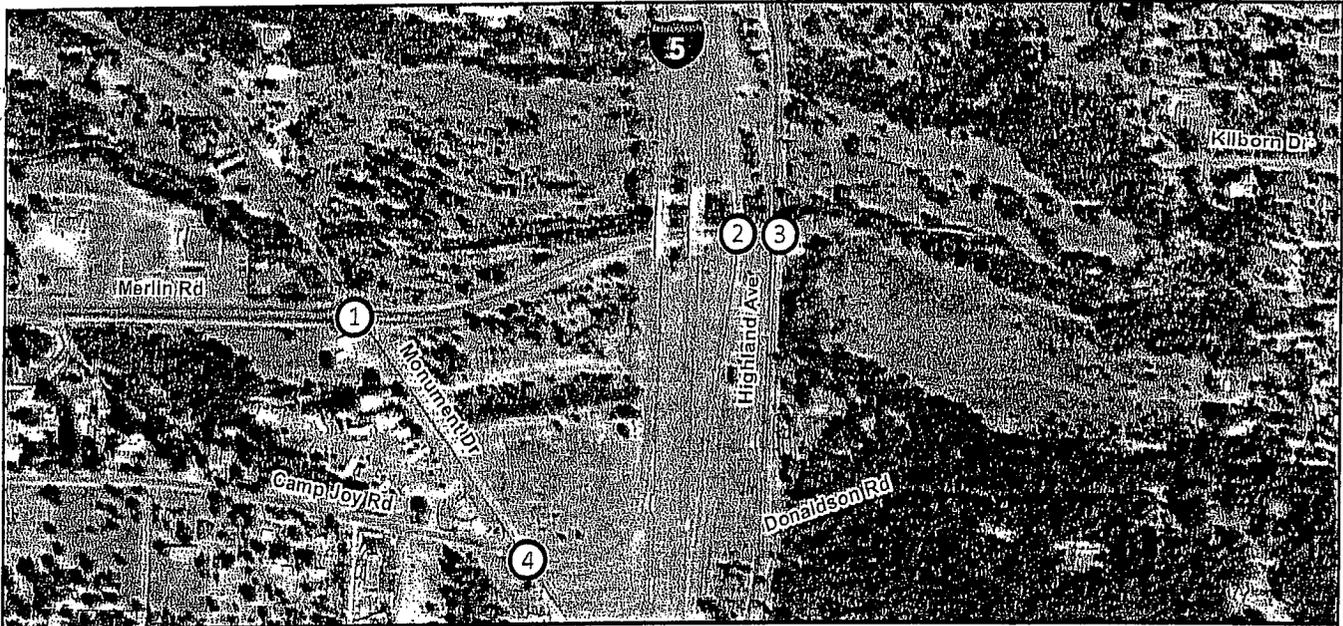
Congested intersection with traffic signal

Access issues along corridor

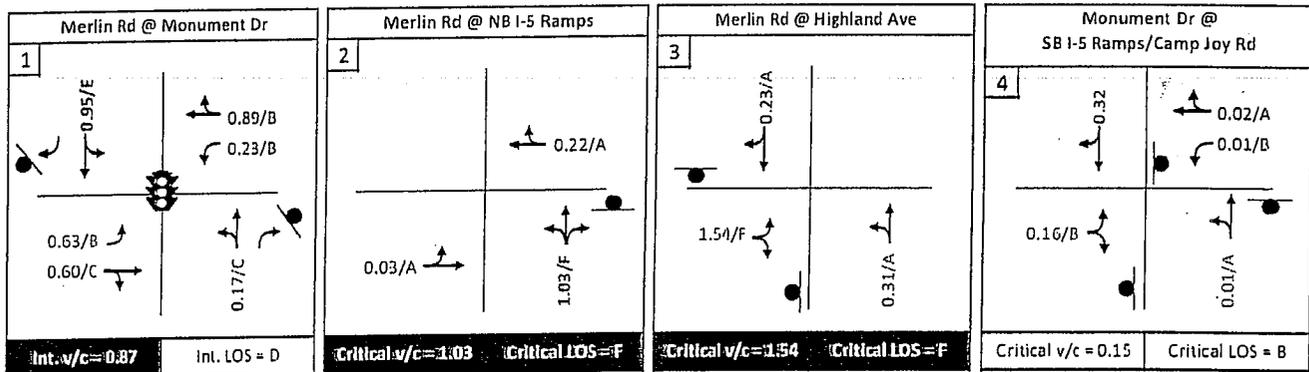
Figure 5

Identified Management Area Issues (Baseline Conditions)

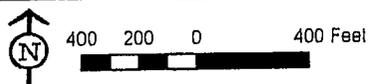
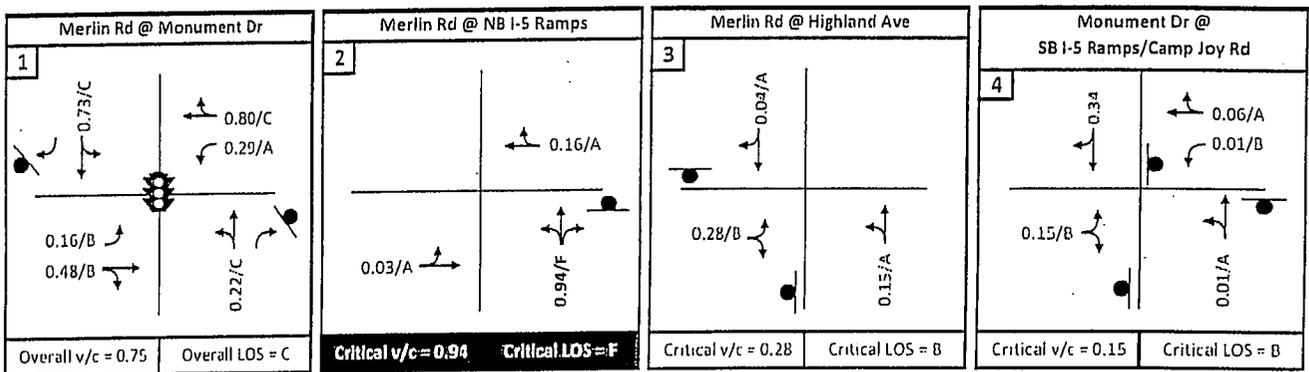
Interchange 61 (Josephine County)
Interchange Area Management Plan



AM Peak



PM Peak



Map Prepared By:



Legend

Traffic Signal

Stop Sign

Critical: The movement that must stop or yield with the highest v/c ratio

Does Not Meet Standards

v/c: Volume to Capacity Ratio

LOS: Level of Service

Figure 6

*Existing Conditions (2009)
Peak Period
Traffic Operations &
Lane Configurations*

Interchange 61 (Josephine County)
Interchange Area Management Plan

Analysis for the PM peak period shows that only one management area intersection currently fails to meet applicable operational standards. At the unsignalized intersection of Merlin Road and the northbound I-5 ramps, the northbound (off-ramp) approach exceeds the ODOT mobility standard with a v/c ratio of 0.94. Results show LOS F, but average delays are closer to half a minute. Analysis results show that the backup at this ramp is approximately 350 feet; however, anecdotal information suggests that backups occasionally extend the length of the off-ramp (1,200 feet) and interrupt northbound I-5 mainline free-flow operations. This backup occurs because of the significant left-turn demand for this single-lane stop-controlled approach.

Freeway Operations

It is important to understand how the traffic along interchange ramps interacts with the mainline freeway traffic on I-5 through an analysis of the points where traffic enters or merges onto the freeway and where it exits or diverges from the freeway. Analyses were conducted were conducted in accordance with the methodology prescribed in ODOT's APM to evaluate these conditions.

The merge and diverge analyses show that both on- and off-ramps are currently meeting the standard during the AM and PM peak periods. When looking at ramp locations in isolation (not considering queuing from ramp terminals), the merge and diverge analyses for the AM and PM peak hours show that the freeway and the merge and diverge points associated with the Interchange 61 ramps are currently operating well below the mobility standard of 0.80. However, the anecdotal information suggests that the northbound off-ramp does not consistently operate this smoothly during the PM peak hour because of queuing that occasionally builds from the ramp terminal at Merlin Road back onto the mainline facility.

Crash History Analysis

A crash history analysis was conducted to determine whether any significant, documented safety issues exist within the management area.

Overall, the analysis found no significant crash patterns at any of the management area intersections or freeway segments, and no single intersection demonstrated a significant safety problem. Zero fatalities occurred during the three-year analysis period (between January 1, 2005, and December 31, 2007), although two "Injury A" (serious incapacitating injury) crashes occurred on the freeway segment during that period.

Although crash data did not identify an issue at Monument Drive/Camp Joy Road/southbound off-ramp, the geometric layout presents a safety concern for the following reasons:

- The southbound off-ramp provides little space for vehicles to decelerate to a stop with a recommended speed of 25 mph.
- The unconventional layout leads to issues with driver expectancy.
- Open frontage for the adjacent business creates a high number of conflict points with mainline traffic.

- Access from Camp Joy Road, Monument Drive, and multiple driveways directly onto the ramp creates conflicts between local and through traffic, particularly where vehicles are speeding up to access I-5.

In addition, many access points are located too near the interchange to meet standards and may pose safety hazards

Future Baseline Conditions

The analysis of future baseline conditions examines long-term operational and safety concerns without any improvements in the management area. This section provides future baseline (2034) AM and PM peak hour traffic analysis results. Intersection and freeway merge/diverge operations are presented, as well as safety issues. It concludes with a summary of deficiencies.

Future Baseline Peak Hour Traffic Volumes

Future baseline traffic volumes were developed from travel demand forecasting model output for Josephine County with some specific adjustments to address anticipated land use changes near the planning area. The two specific developments, located close to the interchange, were added to the model: the rezoning at the Grants Pass Airport and the potential Paradise Ranch development. Although these developments have not occurred, by including them in the analysis, we capture the high end of traffic volumes that should be planned for in a long-range solution. In addition, trips associated with the nearby middle and high schools were included.

Future (2034) peak hour turning movement volumes were developed following the procedures from ODOT's APM. The resulting volumes show a substantial increase in traffic (approximately 30 to 40 percent along I-5).

Future Intersection Operations

The 2034 future baseline traffic analysis results are summarized below. Table 3 presents the operational analysis results for all major management area intersections, and Figure 7 shows both operations and lane configurations.

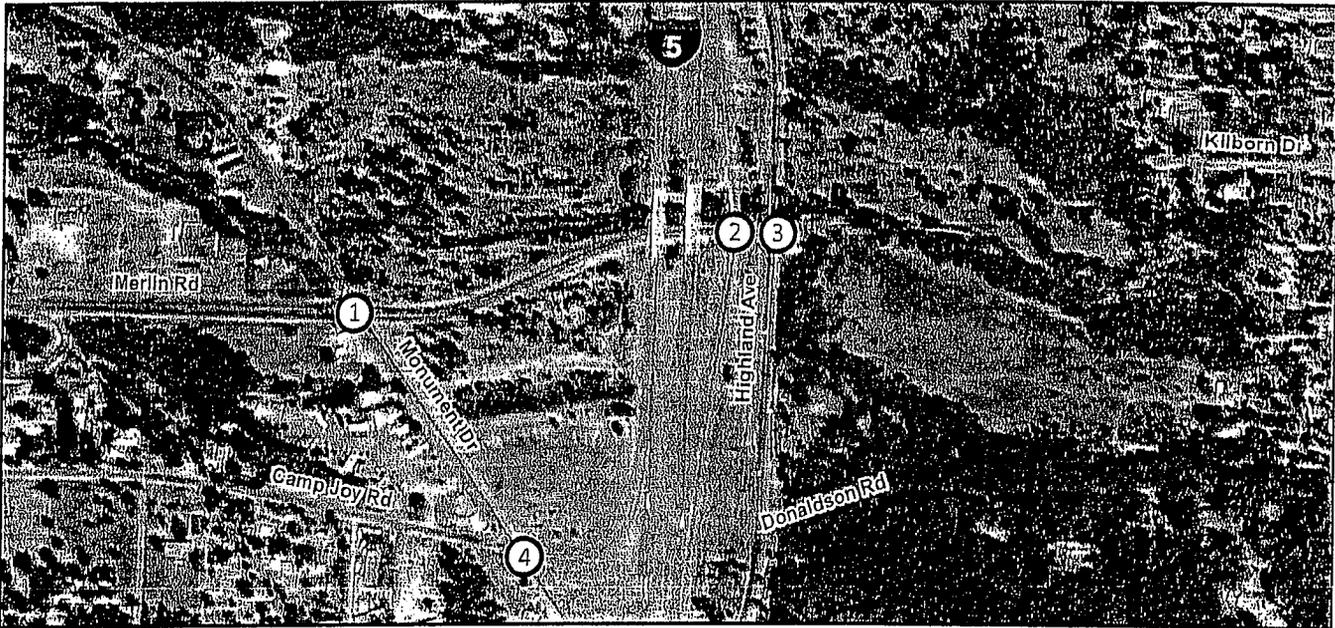
Table 3. Future (2034) Baseline AM & PM Peak Hour Traffic Operations Analysis Results

Intersection	Direction & Movement	AM Peak Hour		PM Peak Hour		Operational Standards	
		V/C Ratio	LOS	V/C Ratio	LOS	OHP ²	County
1 Merlin Rd/Monument Dr (Signalized)	Overall	0.86	C	1.17	F	0.85	LOS D
2 Merlin Rd/I-5 Northbound Ramps	NB L/T/R	1.77	F	1.93	F	0.85	-
3 Merlin Rd/Highland Ave	EB L/R	0.82	E	0.28	B	0.85	LOS D
4 Monument Dr/I-5 Southbound Ramps/Camp Joy Rd ⁷	EB L/R	-	-	0.64	D	0.85	LOS D
	SB T/R	0.44	A	-	-		

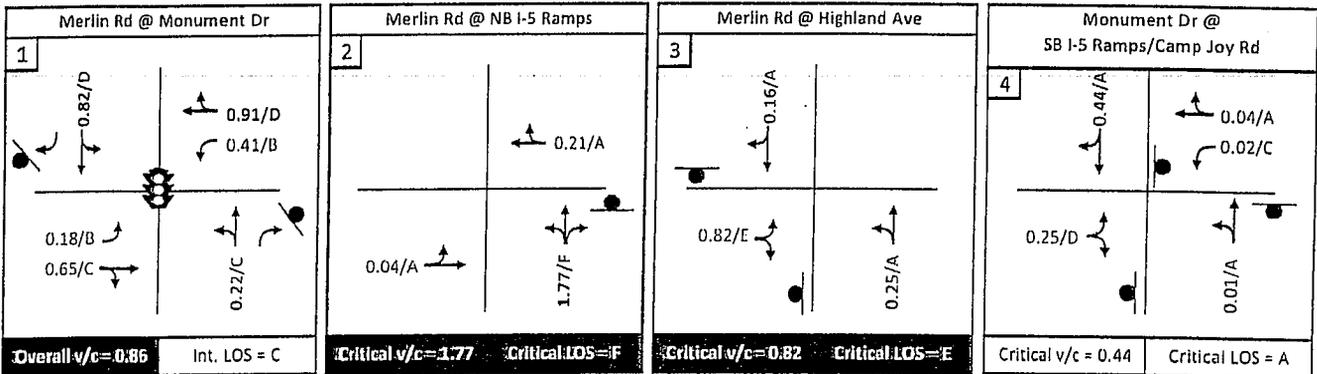
Notes:

1. At the signalized intersections, the overall results are reported, while at unsignalized intersections the results are only reported for the stop or yield movement with the highest v/c ratio. EB = eastbound; WB = westbound; NB = northbound; and SB = southbound. L = left; T = through; and R = right.
2. 1999 Oregon Highway Plan (OHP), Policy 1F applies to existing and Baseline conditions through the planning horizon.

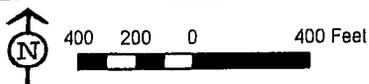
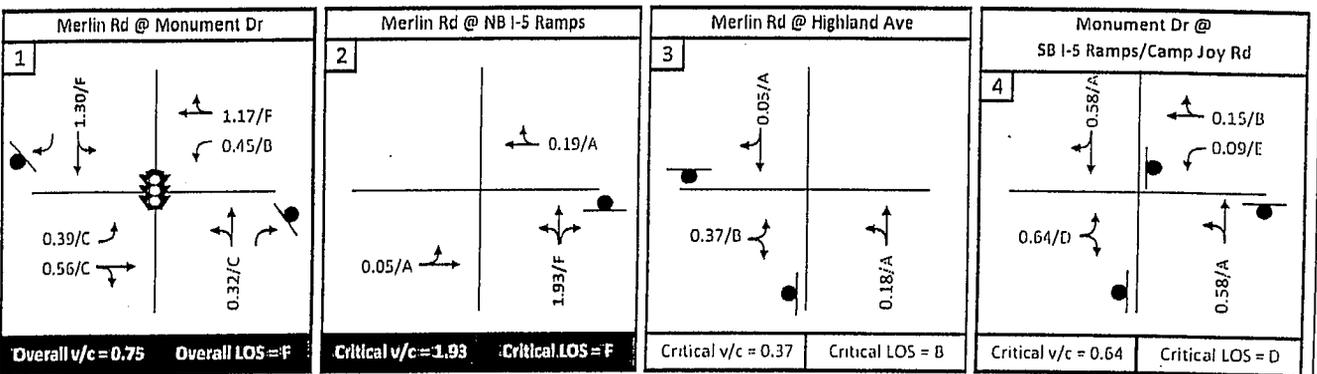
Source: David Evans and Associates, Inc.



AM Peak



PM Peak



Map Prepared By:



Legend



Traffic Signal



Stop Sign



Does Not Meet Standards

V/C:

Volume to Capacity Ratio

LOS:

Level of Service

Critical: The movement that must stop or yield with the highest v/c ratio

Figure 7

*Future Baseline (2034)
Peak Period
Traffic Operations &
Lane Configurations*

Interchange 61 (Josephine County)
Interchange Area Management Plan

For the AM peak hour, three of the management area intersections would exceed maximum operational standards, while the other two appear to have adequate capacity to accommodate AM peak hour demands. At the unsignalized intersection of Merlin Road and northbound I-5 ramps, the northbound (off-ramp) approach is expected to exceed the ODOT mobility standard with a v/c ratio of 1.77. Results show LOS F operations and average delays of greater than five minutes. Analysis results estimate a backup in excess of 1,200 feet, which would extend beyond the length of the off-ramp (1,200 feet) and interrupt northbound I-5 mainline free-flow operations. At the signalized intersection of Merlin Road and Monument Drive, the overall intersection is expected to exceed mobility standards with a v/c ratio of 0.86. Results show LOS C operations and average delays of less than 30 seconds. If the signal timing is optimized in the future, with no geometric improvements, overall intersection operations could be somewhat improved with a resulting v/c ratio of 0.83. At two locations, Merlin Road and Monument drive, as well as Merlin Road and Highland Avenue, operations are expected to improve compared to existing conditions. This improvement is expected because in existing conditions, a high percentage of peak hour traffic travels during the peak 15 minutes, while vehicles are expected to spread across the entire peak hour in future conditions.

For the PM peak hour, two of the management area intersections are also expected to exceed maximum operational standards, while the others appear to have adequate capacity to accommodate PM peak hour demands. At the unsignalized intersection of Merlin Road and northbound I-5 ramps, the northbound (off-ramp) approach is expected to exceed the ODOT mobility standard with a v/c ratio of 1.93. Results show LOS F operations and average delays of greater than five minutes. Queues would extend beyond the length of the off-ramp (1,200 feet) and interrupt northbound I-5 mainline free-flow operations. At the signalized intersection of Merlin Road and Monument Drive, the overall intersection is expected to exceed mobility standards with a v/c ratio of 1.17. Results show LOS F operations and average delays of greater than three minutes. If the signal timing is optimized in the future, with no geometric improvements, overall intersection operations could be somewhat improved with a resulting v/c ratio of 1.09.

Freeway Operations

The interaction of the I-5 ramps and mainline traffic was also evaluated for the future condition. The merge and diverge analyses show that both on- and off-ramps are expected to meet ODOT's mobility standards when looking at ramp locations in isolation (not considering queuing from ramp terminals). However, operational analysis of the northbound off-ramp at Merlin Road indicates extensive delays and backups along the ramp that would impact operations on mainline I-5 during both morning and evening peak hours.

Future Traffic Safety Considerations

The existing safety analysis did not identify any consistent crash patterns; however, the data can be used to determine the types of movements that could potentially lead to safety concerns in the future. The potential for future conflict and safety considerations at each management area intersection is discussed below.

The proximity of the intersection at Merlin Road and the northbound ramps with the Highland Avenue intersection (to the east) is an existing concern due to the limited storage space and reaction time available for drivers. These conditions may become a greater issue in the future with the projected increase in traffic.

Although the current crash rate is relatively low at the intersection of Monument Drive and the southbound off-ramp terminal/Camp Joy Road, the geometric layout of the intersection coupled with a future increase in traffic volumes may create a safety concern. The southbound off-ramp provides little space for vehicles to decelerate to a stop and has a recommended speed of 25 mph. Open frontage for existing businesses adds to the number of conflict points near this intersection. Furthermore, the unconventional intersection layout may cause issues with driver expectancy.

The final intersection of note within the management area is a jug handle access onto the southbound on-ramp (also called Monument Drive) just south of the southbound ramp terminal/Camp Joy Road intersection. Although it was not included as a management area intersection or in the existing conditions analysis, its proximity to I-5 provides potential safety concerns at this location, as discussed in the Access Management Plan.

In addition, the location of multiple driveways near and onto the interchange ramps will continue to create conflicts between local and through traffic. As traffic increases, there will be fewer gaps in traffic and a greater possibility of crashes.

3. ALTERNATIVES DEVELOPMENT AND ANALYSIS

This section summarizes the development of alternatives to address long-range deficiencies surrounding Interchange 61, including Merlin Road intersections and local street system alternatives. The improvements were developed to meet the identified goals and objectives of this plan, and specifically address issues identified in the problem statement and deficiencies identified in Figure 5 (Detailed discussions of existing and future baseline conditions are contained in Tech. Memo #3 within Volume 2 of this IAMP).

Preliminary Concepts

After evaluating issues identified for the future baseline conditions, an initial list of solutions was created to address specific issues. These preliminary solution concepts were not intended to be all-inclusive in nature, but rather to help provide an understanding of the diverse range of actions that could be implemented. Preliminary concepts were initially broken out to target improvements unique to the east and west sides of the interchange. Eleven preliminary concepts were evaluated.

Operational analyses were performed at key intersections for some of the preliminary concepts to understand their efficacy in addressing deficiencies. In addition, preliminary-level cost estimates were prepared to compare the concepts to each other.

Table 4 summarizes the key improvements associated with each of the preliminary concepts evaluated throughout this IAMP process. After the most promising concepts for the east and west sides were selected for further analysis, through public and technical advisory committee input, east and west side improvement strategies were combined to create comprehensive improvement strategies. The preferred alternative was developed by combining elements of the preliminary concepts that proved to be the most effective, as described later in this section.

Table 4. Preliminary Concepts Summary

Concept & Description
<p>Concept 1E (Five-Leg Roundabout)</p> <ul style="list-style-type: none"> • Adds a new five-leg roundabout, joining Highland Ave, Merlin Rd, and I-5 NB ramps. • Ties the closely spaced intersections together to act as one. • Treats each facility with the same level of priority, rather than a hierarchy favoring the interstate.
<p>Concept 2E (Highland Extension & NB Ramp Signal)</p> <ul style="list-style-type: none"> • Adds a traffic signal at the intersection of Merlin Rd and the I-5 NB ramps. • Realignment Highland Ave and extends Merlin Rd east approximately 1,250 feet from I-5 NB ramps. • Adds a second NB approach lane for left turns on the I-5 NB off-ramp. • Adds additional WB receiving lane on Merlin Rd (under I-5 overpass) to facilitate a second northbound-to-westbound (NBL) left-turn lane.

Table 4. Preliminary Concepts Summary

Concept & Description
<p>Concept 3E (Temporary Stop Sign Reconfiguration)</p> <ul style="list-style-type: none"> • Alters the current stop configuration. • Stop sign for SB traffic on Highland Ave at Merlin Rd. • New stop sign for NB traffic on Highland Ave at Merlin Rd. • New stop sign for EB and WB traffic on Merlin Rd at the I-5 ramps. • Free flow (remove the stop sign) for I-5 NB off-ramp onto Merlin Rd.
<p>Concept 4E (New Clustered Signals)</p> <ul style="list-style-type: none"> • Replaces stop sign configuration (1E) with clustered signals on Merlin Rd at NB ramps and Highland Ave. • Adds a second NB left-turn lane at Merlin Rd intersection with the I-5 ramps and corresponding receiving lane (WB Merlin Rd) under the I-5 overpass. • Adds WB right-turn lane from Merlin Ave onto NB Monument Dr. • Optimizes signal timing at Merlin Ave and Monument Dr.
<p>Concept 1W & 2W (New Local Access Roads & Access Control)</p> <ul style="list-style-type: none"> • Adds new local Roadway connections between: <ul style="list-style-type: none"> o Southern Monument Dr and Camp Joy Rd (using new road and using existing private roads) o Camp Joy Rd and Merlin Rd (via existing Grants Pass Rd right-of-way). • Institutes access control such as consolidation of driveways, restricting driveways to right-in and right-out movements, and/or closing driveways on Merlin Rd west of Monument Dr.
<p>Concept 3W (Reconfigure SB Ramps to Diamond Interchange Configuration)</p> <ul style="list-style-type: none"> • Reconfigures the SB off-ramp by adding a new ramp to the north, terminating on Merlin Rd. • Closes the existing SB off-ramp (partial folded diamond). • Improves traffic signal timing at the Merlin Rd/Monument Dr intersection. • Reconfigures the SB on-ramp by adding a new I-5 connection south of Merlin Rd, completing the diamond interchange. • Closes existing I-5 SB on-ramp on Monument Dr and converts Monument Dr from freeway on-ramp to local access road. • Adds a traffic signal on Merlin Rd at I-5 SB ramps coordinated with the signals at Monument Dr and cluster east of I-5. • Adds a right-turn lane for the EB traffic on Merlin Rd entering I-5 SB. • Adds dual SB left turn lanes on Monument Dr at Merlin Rd
<p>Concept 4W (Reconfigure SB Ramps to Partial Diamond Interchange)</p> <ul style="list-style-type: none"> • Reconfigures the SB off-ramp by adding a new facility north of Merlin Rd. • Closes the existing SB off-ramp (partial folded diamond). • Adds a right-turn lane for the WB traffic on Merlin Rd turning onto Monument Dr NB. • Improves traffic signal timing at the Merlin Rd/Monument Dr intersection. • Extends the acceleration lane for the SB on-ramp south of Monument Dr.
<p>Concept 5W (Relocation of SB Off-Ramp to the North)</p> <ul style="list-style-type: none"> • Reconfigures the SB off-ramp by adding a new SB off-ramp approximately 2,200 feet north of Merlin Rd onto North Valley Industrial Way. • Closes the existing SB off-ramp (partial folded diamond). • Adds a right-turn lane for the WB traffic on Merlin Rd turning onto Monument Dr NB. • Improves traffic signal timing at the Merlin Rd/Monument Dr intersection. • Extends the acceleration lane for the SB on-ramp south of Monument Dr.

Table 4. Preliminary Concepts Summary

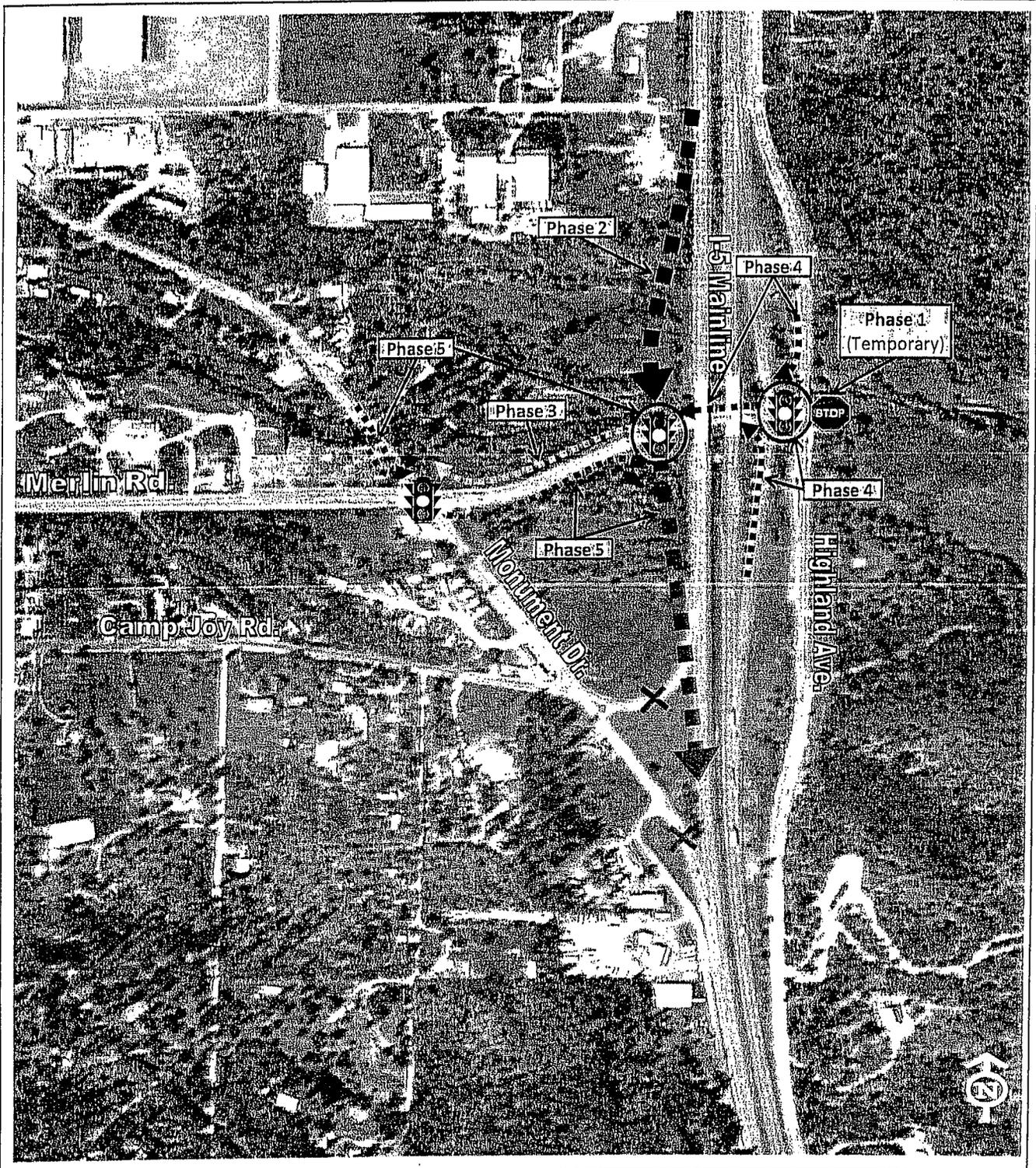
Concept & Description
<p>Concept 6W (Combined Concept)</p> <ul style="list-style-type: none"> • Institutes access control (e.g., driveway consolidation, restricting driveways to right-in/right-out movements, and/or closing driveways) on Merlin Rd west of Monument Dr and Monument Dr south of Merlin Rd. • Removes Camp Joy Rd access and Monument Dr access onto the freeway on-ramp (Monument Dr). • Adds new local road connections between southern Monument Dr and Camp Joy Rd and between Camp Joy Rd and Merlin Rd. • Adds new local Rd connection (Grants Pass Rd) from Merlin Rd north to Monument Dr, with a new traffic signal at Merlin Rd and a new stop sign control at Monument Dr. • Adds a right-turn lane for WB traffic on Merlin Rd to Monument Dr NB. • Improves traffic signal timing at Merlin/Monument intersection. • Extends the acceleration lane for the SB on-ramp south of Monument Dr.
<p>Concept 7W (Combined Concept with Separated Local & SB On-Ramp Traffic)</p> <ul style="list-style-type: none"> • Combines elements from Concepts 1W, 2W, and 4W. • Restricts access along Monument Dr south of Merlin Rd. The two affected accesses include: <ul style="list-style-type: none"> • Camp Joy Rd: right-in/right-out access only • Monument Dr. extension (adjacent to southbound on-ramp): right-in/right-out access only. • Converts Monument Dr (south of Merlin Rd)/I-5 SB on-ramp to one-way facility. • Separates local and interstate traffic via median, advance signage, and striping. • Removes right-out access from Monument Dr extension near southern end of the SB on-ramp. • Provides new access to Monument Dr north of Merlin Rd via Grants Pass Rd.

Preferred Alternative

The Preferred Alternative was developed as a result of screening the 11 preliminary concepts through a public involvement and committee review process, as discussed in Technical Memorandums 4 and 5 within Volume 2 of this IAMP. The Preferred Alternative begins with preliminary Concept 3E (all-way stop control at the northbound ramps) as an interim solution, then combines Concept 3W (diamond interchange with new southbound ramps) and Concept 4E (clustered signal on Merlin Road at northbound ramp and Highland Avenue).

Preferred Alternative Improvements

The improvements that have been incorporated into the Preferred Alternative are intended to address three primary categories of concern: (1) southbound ramp and land use/access issues, (2) capacity issues at Merlin Road and Monument Drive, and (3) northbound ramp capacity combined with access spacing issues. The proposed improvements are summarized below, and broken into the aforementioned categories of concern. Because issues and solutions are unique to the west side and the east side of the interchange, the considerations section of this alternative summary is broken out by west side and east side of the I-5 bridges. Figure 8 shows the preferred alternative improvements and the potential phases for construction.



 <p>DAVID EVANS AND ASSOCIATES INC.</p>	<p>Legend</p> <ul style="list-style-type: none">  Roadway Improvement / Extension  Access Removed & Alternative Route Provided  New Coordinated Traffic Signal  Alternative stop sign configurations at two closely spaced intersections 	<p style="text-align: right;">Figure 8</p> <p style="text-align: right;"><i>Preferred Alternative (IAMP Improvements) Phasing Summary</i></p> <p>Interchange 61 (Josephine County) Interchange Area Management Plan</p>
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(1) I-5 Southbound Ramp Issues and Land Use/Access Issues:

- Reconfigures interchange to a narrow diamond configuration and closes existing southbound ramps. Essentially converts existing southbound on-ramp into a local frontage road, solving access issues along Monument Drive.
- Adds a new traffic signal at Merlin Road and the new southbound ramps, coordinated with the signals to the west and east.
- Provides new westbound through lane on Merlin Road between the northbound ramp terminal and Monument Drive, which turns into a right-turn lane at Monument Drive.
- Adds an eastbound right-turn lane along Merlin Road, from Monument Drive to the new southbound ramp terminal, where it transitions into a dual eastbound right-turn lane.

(2) Merlin Road/Monument Drive Intersection Issues:

- Adds a right-turn lane for westbound traffic on Merlin Road to Monument Drive northbound.
- Provides two dedicated left-turn lanes for southbound traffic along Monument Drive to Merlin Road eastbound.
- Improves traffic signal timing at the Merlin Road/Monument Drive intersection.

(3) I-5 Northbound Ramp Capacity and Access Spacing Issues:

- Adds an all-way stop at the I-5 northbound ramps/Merlin Road intersection as an interim project (will serve for approximately 3 to 7 years if no significant development occurs).
- Adds two traffic signals for long-term solution: one at Highland Avenue/Merlin Road and one at I-5 northbound ramps/Merlin Road. Signals timed to tie the closely spaced intersections together to act as one (clustered signal), and coordinated with adjacent signals to the west.
- Provides a second left-turn lane along I-5 northbound off-ramp.
- Adds an additional westbound receiving lane on Merlin Road (under I-5 overpass).
- Provides a southbound right-turn lane on Highland Avenue at Merlin Road.
- Improvements can be phased to be responsive to growth and to allow funding to be spread out over a longer period of time. Specifically, these improvements are separated into five potential construction phases to account for funding limitations and allow improvements to be made as they are warranted, dependent upon growth and development in the area. The improvements can be phased in the following order:
 1. East side alternative stop sign configuration (Preliminary Concept 3E).
 2. Southbound off-ramp with interim stop-controlled (off-ramp only) terminal, which includes the closure of existing off-ramp. Stop control would change to signalized control in phase 5.
 3. Westbound right-turn lane at Merlin Road/Monument Drive.
 4. Clustered signal system on Merlin Road at the northbound ramps and Highland Avenue, as well as additional approach and receiving lanes.
 5. New southbound on-ramp, signalized terminal (changing the stop-control identified in phase 3), additional turn lanes, and closure of existing on-ramp.

West Side Considerations

On the west side of the interchange, analyses suggest that the proposed improvements will involve the following benefits and considerations:

- Operations at Merlin Road/Monument Drive would generally improve, when compared to future 2034 baseline (no build), as a result of the new westbound turn lane installation and signal optimization.
- Traffic that is rerouted to access new southbound ramps would require, at a minimum, a new dedicated southbound left-turn lane at Merlin Road/Monument Drive.
- Rerouting of traffic heading towards southbound I-5 would be required.
- New bridge would be required to cross Louse Creek with southbound off-ramp.
- Potential conflicts with Camp Joy Road/southbound off-ramp traffic (off-ramp is moved) would be eliminated.
- Conflicts with Camp Joy Road/southbound on-ramp traffic (on-ramp is moved) would be eliminated.
- Monument Drive south of Merlin Road could act as a frontage road for local traffic rather than a freeway ramp.
- Access conflicts along Monument Drive south of Merlin Road would be lessened by reducing the volume and speed of southbound through traffic.

East Side Considerations

On the east side of the interchange, analyses suggest that the proposed improvements will involve the following benefits and considerations:

- Queuing on I-5 northbound off-ramp and backing up onto the I-5 mainline would be minimized, improving safety.
- The temporary stop sign configuration (Concept 3E, all-way stop is a low-cost, stop gap solution that would alter the stop control at the Merlin Road/Highland Avenue and the northbound ramp/Merlin Road intersections on the east side of I-5.
- A breakdown analysis suggests that the all-way stop configuration could serve as an interim solution (approximately 3 to 7 years, if no significant growth occurs) to address the operational issues and the northbound queuing problem at the ramp terminal.
- Operations of a cluster signal would likely meet state standards in 2034.
- A second Merlin Road receiving (westbound) lane would add room for a northbound left-turn lane from the I-5 northbound off-ramp that would continue until Monument Drive, where it would become a right-turn lane.
- Traffic control change along Highland Avenue will require advanced signing and other safety considerations for northbound traffic traveling at high speeds (50 mph).

Future (2034) Operations with Preferred Alternatives

The Preferred Alternative network was evaluated using future (2034) traffic volumes to confirm that the combined improvements would address operational deficiencies identified under baseline conditions.

Preferred Alternative Traffic Volumes

Future alternatives traffic volumes were developed from the future baseline volumes, with a manual assignment of rerouted trips that would result from preferred alternative configurations. These manual assignments were required for the standard diamond interchange configuration, because it involves the relocation of both southbound ramps.

Preferred Alternative Operations

The reassigned traffic volumes were then evaluated with the Preferred Alternative and results were compared to the mobility standards set forth in the Highway Design Manual⁴ (HDM). While Oregon Highway Plan (OHP) mobility standards are applied for existing and future No Build conditions (i.e., no/limited geometric changes), HDM standards are applied in conjunction with any design changes. The HDM standard applicable for district highways is 0.75 in unincorporated communities. The operational results are presented in Table 5, while both operations and proposed lane configurations are presented in Figure 9.

Table 5. Future Conditions (2034) Preferred Alternative Peak Hour Traffic Operations

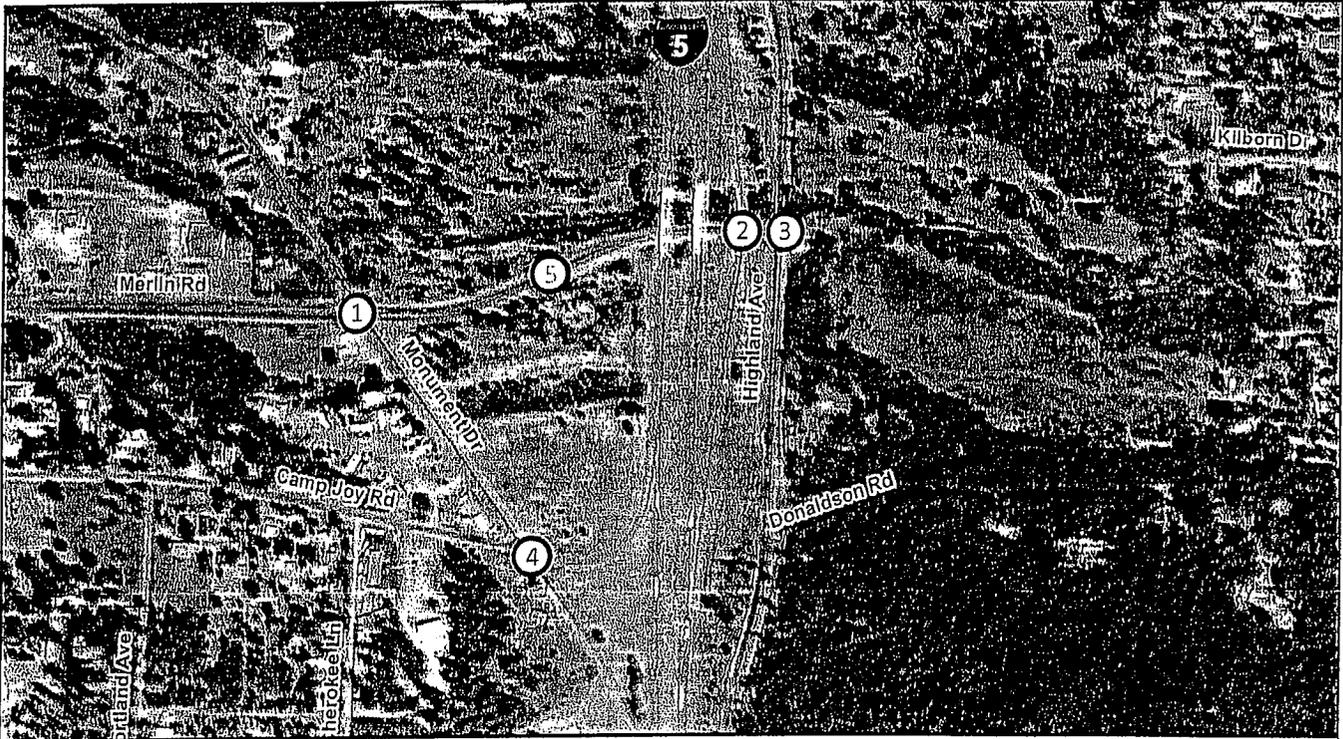
Intersection	Direction & Movement	AM Peak Hour		PM Peak Hour		Operational Standards	
		V/C Ratio	LOS	V/C Ratio	LOS	HDM ²	County ³
		1 Merlin Rd/ Monument Dr (Signalized)	Overall	0.53	D	0.75	C
2 Merlin Rd/I-5 NB Ramps (New Signal)	Overall	0.75	D	0.74	D	0.75	n/a
3 Merlin Rd/ Highland Ave (New Signal)	Overall	0.61	C	0.37	C	0.75	LOS D
4 Monument Dr/ Camp Joy Rd	EB L	0.19	A	0.33	B	0.75	LOS D
5 Merlin Rd/I-5 SB Ramps (New Signal)	Overall	0.30	D	0.32	D	0.75	LOS D

Notes:

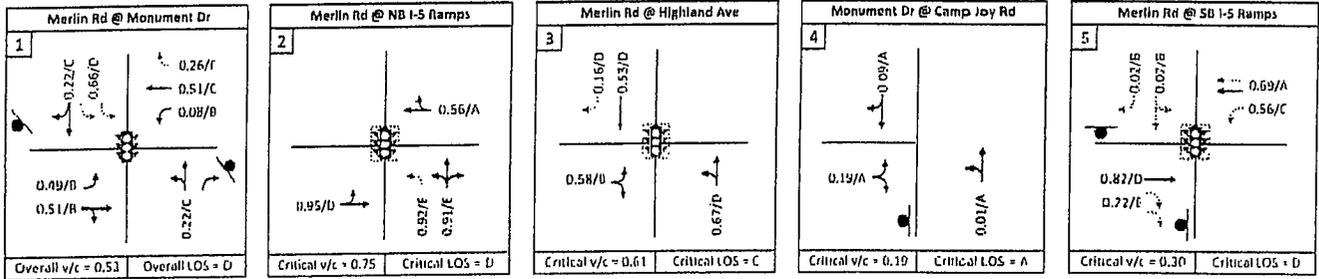
- At the signalized intersections, the overall results are reported, while at unsignalized intersections the results are only reported for the stop or yield movement with the highest v/c ratio. EB = eastbound; WB = westbound; NB = northbound; and SB = southbound. L = left; T = through; and R = right.
- 2003 Highway Design Manual (HDM), Table 10-1 applies to build conditions (assumed Outside Urban Growth Boundary, Unincorporated Communities with a District/Local Interest Roads category).
- Josephine County Transportation System Plan designates the traffic operations standard on county facilities as LOS D or better and defers to ODOT standards for intersections with state highways within the county.

Source: David Evans and Associates, Inc.

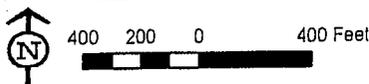
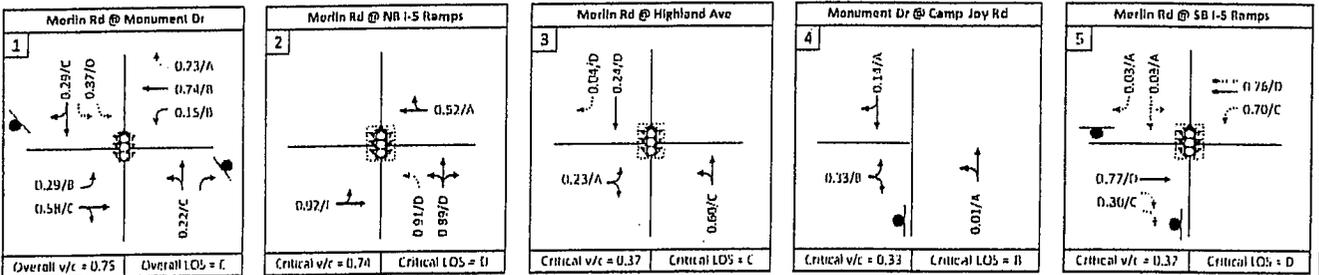
⁴ Table 10-1: 20 Year Design-Mobility Standards (Volume/Capacity [V/C] Ratio), Highway Design Manual, Oregon Department of Transportation, Salem, OR, 2003.



AM Peak



PM Peak



Map Prepared By:



Legend

- IAMP Improvement
- Traffic Signal
- Stop Sign
- New Intersection
- V/C: Volume to Capacity Ratio
- LOS: Level of Service
- Critical: The movement that must stop or yield with the highest v/c ratio

Figure 9
Preferred Alternative (2034)
PM Peak Period
Traffic Operations &
Lane Configurations

Interchange 61 (Josephine County)
 Interchange Area Management Plan

For the Preferred Alternative, the original location of the southbound ramp terminal (at the intersection of Monument Drive with Camp Joy Road) is anticipated to operate well below the v/c ratio standard of 0.75 for both the AM and PM peak periods. The new location of the southbound ramp terminal along Merlin Road (between the existing Monument Drive and the northbound ramp terminal intersections) is also anticipated to operate well within HDM standard with the future 2034 volumes. The realignment of this ramp terminal would eliminate the substandard off-ramp design as well as convert the function of Monument Drive (south of Merlin Road) to a local access street.

As part of the Preferred Alternative, a realigned and signalized southbound ramp terminal was paired with a clustered signal at the northbound ramp terminal and the Merlin Road/Highland Avenue intersection for evaluation. The cluster signal treatment would operate as if both the northbound ramp terminal/Merlin intersection and the Merlin Road/Highland Avenue junction were one intersection and provide signalized control for all movements. It applies a single signal timing plan to both intersections, while allowing the benefits of being responsive to shifts in traffic. Utilizing this treatment would result in future 2034 operations for both intersections (northbound ramp terminal and Merlin Road/Highland Avenue) that meet the HDM standard.

The northbound ramp terminal intersection is anticipated to be roughly equal to the HDM standard for both the AM and PM peak periods. Future queuing at the northbound ramp terminal would likely be reduced significantly compared to the unsignalized queue lengths under the future baseline conditions; thus the safety issue of traffic backing up onto the I-5 mainline would be addressed.

The Preferred Alternative would result in adequate operations for all five management area intersections; however, some operational challenges for the Preferred Alternative include:

- Signal coordination for three locations along Merlin Road (Monument Drive, realigned southbound ramp terminal, and northbound ramp terminal/Highland Avenue) to account for short distances between signalized intersections.
- Potential northbound queues along Highland Avenue that require advanced warning signage.

Phasing Options

Table 6 summarizes the phased improvements in Preferred Alternative. For each phase, recommendations for timing of the improvements or triggers for the need are identified. Whether or not the phase is contingent upon other phases or development is also identified. Notes provide additional information related to each phased improvement.

Table 6. Preferred Alternative (IAMP Improvements) Phasing Summary

Description	Phasing Warrants	
	Timing/Triggers & Contingency	Notes
Phase 1 (Temporary stop sign configuration)		
<ul style="list-style-type: none"> Alters the current stop configuration on the east side of I-5. Retains stop sign for SB traffic on Highland Ave at Merlin Rd. Removes the stop sign for eastbound traffic on Merlin Rd. at Highland Ave. Adds new stop sign for NB traffic on Highland Ave at Merlin Rd and sign alerting Highland Ave traffic to new stop control. Adds new stop sign for EB traffic on Merlin Rd at the I-5 ramps. Adds new stop sign for WB traffic on Merlin Rd at the I-5 ramps. 	<p>Current need due to safety/operational issues today.</p> <p>Not contingent upon other phases or development.</p>	<p>This phase is a current need to address safety and operational issues (queuing onto I-5 mainline).</p> <p>A breakdown analysis suggests that the all-way stop configuration could serve as an interim solution for approximately 3 to 7 years, if no significant growth occurs.</p>
Phase 2 (Reconfigure SB off-ramp)		
<ul style="list-style-type: none"> Reconfigures the SB off-ramp by adding a new ramp to the north, terminating on Merlin Rd. Closes the existing SB off-ramp (partial folded diamond). Improves traffic signal timing at the Merlin Rd/Monument Dr intersection. Adds interim stop sign for SB off-ramp traffic at Merlin Rd (until phase 5). 	<p>Current need due to safety issues today.</p> <p>Not contingent upon other phases or development.</p>	<p>This phase is a current need to address safety issues including geometric deficiencies of the I-5 SB off-ramp (decal and intersection control) as well as to get closer to achieving access spacing standards (Division 51).</p>
Phase 3 (Right-turn lane on Merlin WB to Monument NB)		
<ul style="list-style-type: none"> Adds a right-turn lane for the WB traffic on Merlin Rd turning NB onto Monument Dr NB. 	<p>Traffic volumes or adding of new I-5 SB off-ramp.</p> <p>Contingent upon other phases or development.</p>	<p>This improvement would be triggered by significant land development and related traffic volumes increasing enough for queues from the Merlin/Monument intersection to extend to the I-5 northbound ramp and to cause safety issues with traffic backing up onto the mainline.</p>
Phase 4 (New clustered signals)		
<ul style="list-style-type: none"> Replaces stop signs (phase 1) with clustered signals on Merlin Rd at NB ramps and Highland Ave. Adds a second NB left-turn lane at Merlin Rd intersection with the I-5 ramps and corresponding receiving lane (WB Merlin Rd) under the I-5 overpass. Adds SB right-turn lane from Highland Ave to Merlin Rd. Optimizes signal timing at Merlin Ave and Monument Dr. Adds temporary signage alerting NB traffic on Highland Ave to new traffic signal. 	<p>Traffic volume increases to warrant signals.</p> <p>Contingent upon other phases or development.</p>	<p>This phase is contingent on area development that would create operational/safety issues (phase 1 operations fail and traffic signal warrants are met, and/or queuing on the NB off-ramp interferes with mainline operations).</p>

Table 6. Preferred Alternative (IAMP Improvements) Phasing Summary

Description	Phasing Warrants	
	Timing/Triggers & Contingency	Notes
Phase 5 (Southwest leg of diamond interchange)		
<ul style="list-style-type: none"> Reconfigures the SB on-ramp by adding a new I-5 connection south of Merlin Rd, completing the diamond interchange. Closes existing I-5 SB on-ramp on Monument Dr. Converts Monument Dr from freeway on-ramp to local access road. Adds a traffic signal on Merlin Rd at I-5 SB ramps coordinated with the signals at Monument Dr and cluster east of I-5. Adds a right-turn lane for the EB traffic on Merlin Rd entering I-5 SB. Adds dual SB left turn lanes on Monument Dr at Merlin Road 	Contingent upon other phases or development.	This phase is needed to address safety issues and get closer to achieving access spacing standards (Division 51). This phase eliminates conflict between local traffic on Monument Dr south of Merlin Road and accelerating traffic accessing I-5 SB.

Cost Estimates

Cost estimates were developed for the Preferred Alternative. These estimates were broken out by phases, to account for funding limitations and to allow improvements to be made as they are warranted, in response to growth and development in the area. Estimates are preliminary and include engineering, construction, and right-of-way costs. These estimates 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 environmental mitigation. Cost estimates are shown in Table 7.

Table 7. Preferred Alternative Preliminary Cost Estimates

Phase	Cost (2011 \$)
Phase 1 (Temporary stop sign configuration)	\$10,000
Phase 2 (Reconfigure SB off-ramp)	\$5,800,000
Phase 3 (Right-turn lane on Merlin WB to Monument NB)	\$435,000
Phase 4 (New clustered signals)	\$4,560,000
Phase 5 (Southwest leg of diamond interchange)	\$6,945,000
TOTAL	\$ 17,750,000

4. MANAGEMENT STRATEGIES

An integral part of the IAMP process is providing a strategy and plan to protect the function of the interchange and its influence area. Management actions can extend the life of the interchange and provide for incremental implementation of Interchange 61 area improvements, allowing individual components to be funded and built when needed. Given the funding constraints and statewide demand for interchange improvements, it could take several years to develop a funding package and construct all the improvements recommended in the IAMP.

Access Management Plan

An Access Management Plan is defined by ODOT in Division 51 as “a comprehensive area-wide solution for local access and circulation to minimize use of state highways for local access and circulation and to preserve the functional capacity of the highway. These planning actions could include relocating, severing or adding new city streets, land use controls, trip caps, and adoption of ordinances to allow cross-over easements.”

This Access Management Plan reviews the existing access issues in the Interchange Management Area and the future access issues in the Interchange Management Area with the new interchange configuration and improvements and future traffic volumes. It then proposes access management actions that can be taken by ODOT and Josephine County to protect the facilities.

Access management is a set of techniques that state and local governments can use to control access to highways, major arterials, and other roadways. Access management strategies are designed to extend the operational life of the interchange by reducing congestion, improving traffic flow, reducing crashes, and reducing conflicting vehicle movements. Access management techniques include:

- **Access Spacing:** By increasing the distance between traffic signals and other public roadway connections, the flow of traffic on major arterials can be improved. This also reduces congestion and improves air quality for heavily traveled corridors.
- **Driveway Spacing:** Fewer driveways spaced further apart could allow for more orderly merging of traffic and present fewer challenges to drivers.
- **Turning Lanes:** Dedicated left- and right-turn lanes, and indirect left turns and U-turns could be considered to keep through-traffic flowing.
- **Median Treatments:** Two-way left-turn lanes and nontraversable, raised medians are examples of some of the most effective means to regulate access and reduce crashes.
- **Improve Local Roadway Circulation System:** The current roadway system has limited north-south connections, and thus traffic is concentrated on a few streets. More connections would allow traffic to move more efficiently and permit access on lower volume streets.

Existing Access Conditions and Issues

The OHP standards for access locations are two miles between interchange ramps on I-5; and 1,320 feet (¼ mile) between on- and off-ramps and roadway intersections or driveways. This ¼-mile area is called the Influence Area of the interchange.

A comparison of the current access spacing with the adopted access standards shows that Interchange 61 is approximately 4 miles from the next full interchange (Interchange 66), but is closer than two miles from the ODOT rest area (Exit 62) where the southbound rest area on-ramp is approximately 1.3 miles from the Interchange 61 southbound off-ramp.

In addition, multiple driveways and roadways in the management area are closer to the ramp terminals than ODOT's standards. East of I-5, Highland Avenue does not meet the spacing standards of 1,320 feet with only about 75 feet of distance between Highland Avenue and the northbound ramps. Also, there are four residential driveways on Highland Avenue and one roadway, Donaldson Road, within 1,320 feet of the ramps. Donaldson Road is a low volume facility serving very low density single-family residential development.

West of I-5, there are not only multiple approaches and accesses within 1,320 feet of the southbound ramp terminals, there are accesses directly onto the ramps. Monument Drive acts as the southbound off-ramp with a terminus at the intersection with Merlin Road. It also acts as the southbound on-ramp from the Merlin/Monument intersection south. This section of Monument Drive between Merlin Road and I-5 (the ramps) has four private accesses and two roadway approaches: Camp Joy and a jug handle roadway also called Monument Drive.

North of Camp Joy road on the I-5 southbound ramp, Umpqua Bank has a driveway, a small manufactured home community has a roughly 80 foot driveway, and Monument Market and Deli convenience store and gas station has an open frontage driveway for roughly 160 feet with head in parking. This driveway is about 20 feet from the Camp Joy/Monument intersection. All three have alternative accesses--Umpqua Bank on Merlin Road, and the other two on Camp Joy Road. In addition, large trucks parallel park on this section of Monument Drive reducing sight lines.

South of Camp Joy Road, there are two undeveloped lots, one with an existing access onto Monument Drive. In addition, there is a jug handle roadway approach approximately 400 feet north of where the freeway begins (also called Monument Drive). This southern portion of Monument Drive is the only access to three businesses (Oregon RV Outlet, Pacific Truck and Trailer, and a body shop). An alternate access would require a new roadway connection to the west to connect to Portland Avenue or Cherokee Lane.

Camp Joy Road has an approach on Monument Drive where Monument acts as the southbound freeway off-ramp (curving northward) and the southbound freeway on-ramp. The intersection of Monument and Camp Joy is stop controlled with a stop sign for Camp Joy traffic heading north or south, and for I-5 southbound off-ramp vehicles heading southbound. There is no stop control for off-ramp traffic heading north on Monument or west on Camp Joy. Camp Joy has 24

driveways and two roadway accesses accessing it within 1,320 feet of Monument Drive (the freeway ramps). Other than the Monument Market and Deli and gas station and the forestry office, the driveways primarily serve large lot single family residences. The two roadways are Cherokee Lane, a private, gravel drive around 500 feet from Camp Joy/Monument intersection, and Portland Avenue, a narrow paved roadway with public right-of-way approximately 1,000 feet from the Camp Joy/Monument intersection.

On Merlin Road west of the intersection of Merlin Road/Monument Drive (essentially the southbound I-5 off-ramp terminus), there are eight driveways and one access road, Grants Pass Road. The private driveways include commercial development very close the intersection with two banks on the corner-Umpqua Bank in the northwest with two accesses on Merlin and one on Monument, and Home Valley Bank with one access on Merlin Road and one on Monument Drive (the ramp). Although Umpqua bank has an alternative access onto Monument Drive north of the terminus it only around 115 north of the intersection. Grants Pass Road ends after about 300 feet north and is located approximately 975 feet from the terminus.

On Monument Drive north of the intersection (SB I-5 ramp terminus), there are nine driveways within 1,320 feet. All but the Umpqua Bank driveway serve single family residences, although one of the residences has an auxiliary commercial use.

Reconfigured Interchange Access Conditions and Issues

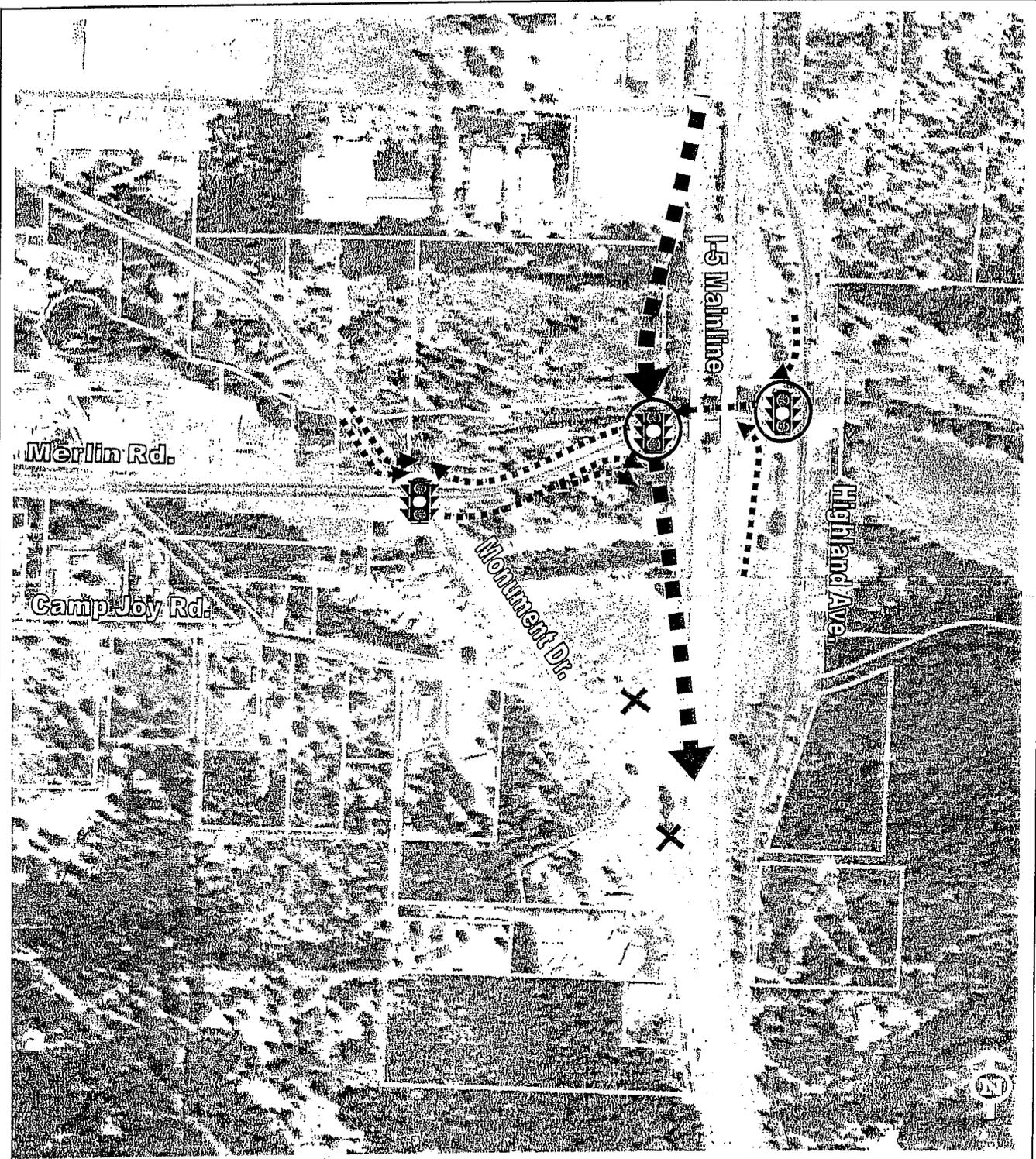
The IAMP calls for reconstructing the interchange to a narrow diamond configuration. This new configuration will greatly improve the distance between the accesses points and the ramp terminals improving safety and access conflicts at the Louse Creek Interchange. Figure 10 shows the IAMP improvements and ¼ mile Interchange Influence Area, excluding ODOT right-of-way.

Eastside Conditions

On the east side of the interchange, the interaction between Highland Avenue/Merlin intersection and the northbound ramps/Merlin intersection will be improved with a temporary change to the stop sign configuration. In the long-term, the two intersections will be tied together with clustered traffic signals that will regulate traffic and remove conflicts. New turn lanes and receiving lanes will also allow more room for stacking, further removing potential conflicts between traffic from Highland and the northbound ramps. Due to the very rural nature of the other accesses on the east side of the highway, the existing driveways and Donaldson Road are unlikely to result in conflicts. Therefore, no access management actions are recommended for ODOT or Josephine County for the east side of Interchange 61.

Westside Conditions

West of the interchange, the most problematic access points are located on Monument Drive south of Merlin Road, where Monument Drive acts as the southbound freeway on- and off-ramps. The IAMP improvements will add new ramps in a narrow diamond configuration, thereby removing the ramp function of Monument Drive and eliminating significant safety concerns.




DAVID EVANS
AND ASSOCIATES INC.

- Legend**
-  Roadway Improvement / Extension
 -  Access Removed & Alternative Route Provided
 -  Tax Lots Within 1/4 Mile of Ramps
 -  Interchange Influence Area (Excluding ODOT Right-of-Way)

Figure 10

IAMP Improvements and Access Management Areas

Interchange 61 (Josephine County)
Interchange Area Management Plan

With the new ramp terminal locations, fewer driveways and roadway approaches are within 1,320 feet of the terminals. The Merlin Road/Monument Drive intersection (no longer the end ramp terminal) would be located roughly 800 feet from the intersection. On Merlin Road, the area west of the new off-ramps is ODOT right-of-way with no accesses until Monument Drive. West of Monument Drive, there are multiple existing commercial driveways within 1,320 feet of the terminals. Umpqua Bank has two driveways, Ray's Market has two driveways, and South Valley Bank has one driveway. West of South Valley Bank is a large vacant commercially-zoned lot without a driveway.

On Monument Drive south of Merlin Road, up to three driveways will be located within 1,320 feet of the new southbound ramp terminals. Two of these driveways are to the South Valley Bank on the southwest corner of the Merlin/Monument intersection. The other is access to a mobile home park.

On Monument Drive north of Merlin Road, two driveways will fall within one-quarter mile of the new southbound ramp terminals— access to the Umpqua Bank on the northwest corner of the intersection with Merlin Road and a residential driveway on a property zoned Community Commercial. In the last phase of the interchange improvements, Monument Drive will be reconstructed to include two left-turn lanes onto Merlin Road. When this occurs the road will need to be widened and the bridge over Louse Creek may need to be reconstructed. The Umpqua Bank driveway may need to be relocated at that time.

I-5 Mainline Conditions

The new I-5 southbound off-ramp will improve safety by allowing vehicles exiting the freeway more time to decelerate and to no longer have to negotiate potential traffic conflicts with vehicles directly accessing the ramp from local driveways and approaches. However, the new southbound off-ramp will be closer to the ODOT rest stop at milepoint 62. The new southbound off-ramp will begin approximately 4,800 feet from the rest stop on-ramps gore point, and will not meet ODOT mainline spacing standards of two miles. At the same time, volumes from the rest stop and volumes exiting the freeway at Interchange 61 are very low and will likely continue to be low in 2034. Consequently, no issues with merge and diverge movements are anticipated on I-5 as a result of the new ramp configuration.

Access Management Actions

The following actions are recommended in the Interchange Area Management Area:

- The intersection of Highland Avenue and Merlin Road will remain three legged. Driveways on Highland Avenue within 1,320 feet of the intersection should be placed as far from the intersection as possible without leaving a parcel landlocked. No other access management actions are proposed for the east side of the interchange. Large lot rural residential zoning will limit traffic impacts from the few driveways there.
- ODOT will continue to maintain complete access control (no access allowed) for property abutting I-5.

- Josephine County should adopt a roadway circulation plan providing additional north-south roadway(s) between Merlin Road and the industrial employment centers northwest of the interchange.
- As development and redevelopment occurs, Josephine County should work with commercial and residential properties to consolidate driveways to improve access spacing along Merlin Road west of Monument Drive, and on Monument Drive south of Merlin Road.
- When Monument Drive north of Merlin Drive is widened to accommodate additional left-turn lanes onto Merlin Road, driveways within the Influence Area should be consolidated.

Transportation System and Demand Management Measures

Transportation System Management (TSM) programs focus on making our transportation systems more efficient. They emphasize getting the most capacity out of roads and other transportation improvements, thereby reducing the need for expensive new facilities. The IAMP improvements implement many TSM measures such as signal timing changes and the provision of turn lanes.

Transportation demand management (TDM) techniques focus on reducing trips for single-occupant automobile trips, particularly at peak commute hours, rather than increasing roadway supply. Josephine County may consider creating a Transportation Management Association (TMA) to assist with TDM. TMA's are organizations that promote travel options, coordinate shared rides, obtain grants, advocate for transit service, and provide incentives to participants. TMA's in rural areas have been particularly successful working with large employers or employers that are clustered geographically to promote alternative transportation options for employees. The North Valley Industrial Park, and schools, and in the future, the industrial land near the Grants Pass Airport, provide concentrated employment which could benefit from these programs.

Land Use Actions

Two land use and development strategies are available with the potential to directly or indirectly influence the transportation impacts of future development. Retaining the current Comprehensive Plan designations and land use zoning and implementing a local transportation funding strategy for Josephine County.

Retain Comprehensive Plan Designations and Land Use Zoning

This strategy represents a commitment by Josephine County to retain the current comprehensive plan and zoning designations and ordinance provisions that the IAMP relies on to protect the performance of the Interchange 61. The Josephine County Comprehensive Plan and zoning ordinance maintains a variety of zoned uses, including residential, commercial, and industrial designations. Changes to the current plan designations and land use zoning could dramatically affect the number of trips generated, trip patterns, and traffic volumes at

intersections and the interchange. As a result, traffic operations at the interchange may approach capacity more rapidly than anticipated, shortening the life of the new interchange and hastening the need for costly investments for additional interchange improvements.

If the provisions of the Josephine County Comprehensive Plan and Josephine County Rural Land Development Code are adopted by reference into this IAMP, ODOT would have the ability to review and weigh in on proposed amendments to plans and ordinances, prior to their adoption by Josephine County, to ensure any changes to these land use controls would avoid development that would jeopardize the achievement of the goal and objectives of the IAMP. ODOT would rely on requirements that local comprehensive plans and implementing ordinances be consistent with the Oregon Highway Plan, which includes this IAMP once the Oregon Transportation Commission adopts it, to ensure that it does not cause violation of the mobility performance standards for the interchange and related facilities.⁵

Implement a Local Funding System

It is recommended that Josephine County implement a local funding system to provide money or match in order to help cover the costs of phasing in the IAMP improvements and necessary local system improvements that will be required to address the needs of the additional traffic that future growth generates.

Enhancing the Local Street Network

A robust and well-connected local street network provides many benefits to the surrounding area. Local street networks are critical to providing access to property and they also distribute traffic over a number of streets rather than concentrating on just a few arterial roadways thus ensuring sufficient capacity for development to occur. As a local roadway network is developed to support property development, traffic circulation can be enhanced by limiting the use of cul-de-sacs and requiring new streets to connect with existing streets.

An enhanced local street network also dovetails with access management on higher volume roadways. By providing access to properties, the local street network also reduces the need to provide direct property access on major roadways, such as state highways and arterial streets. As a result, the local network can improve overall traffic flow and safety of the transportation system.

⁵ The requirements ODOT would rely on include the following provisions of the Oregon Administrative Rules and Oregon Revised Statutes: 1) OAR 660-12-0015(3)(a), part of the TPR, which states that "Local TSPs [transportation system plans]...shall be consistent with regional TSPs and adopted elements of the state TSP", 2) OAR 660-012-0060(1), also part of the TPR, contained in Appendix G; and, 3) ORS 197.015(5), which states that "'Comprehensive plan' means a generalized, coordinated land use map and policy statement of the governing body of a local government that interrelates all functional and natural systems and activities relating to the use of lands, including but not limited to sewer and water systems, transportation systems, educational facilities, recreational facilities, and natural resources and air and water quality management programs... A plan is "coordinated" when the needs of all levels of governments, semipublic and private agencies and citizens of Oregon have been considered and accommodated as much as possible..." (emphasis added).

Josephine County should identify improvements to enhance traffic circulation in the interchange area and adopt these improvements in the Transportation System Plan. Current street configurations limit circulation to just a few roadways in the area. North-south traffic accessing the schools and industrial areas in the northwest quadrant of the interchange is limited to Monument Drive. As the area develops and traffic volumes grow, the provision of additional routes will become more important. Although a roadway circulation plan is not provided in the IAMP, options should be explored in the TSP including the development of the right-of-way for "Grants Pass Road" that would connect Merlin Road to the north.

5. IMPLEMENTATION

Implementation of the I-5 Interchange 61 (Louse Creek) IAMP will need to occur at the local and state level. The plan will be adopted as an amendment to the Oregon Highway Plan by the Oregon Transportation Commission. It will also be adopted as part of the Josephine County Transportation System Plan.

The elements recommended for formal adoption as part of this IAMP are specified below. Some actions are to be adopted by the OTC as a "facility plan" that implements the OHP. Other actions are adopted by Josephine County. Each subsection specifies which agency is responsible.

OHP Policy Statement

Adoption of the OHP is a state responsibility. Adopting a new policy statement describing the priorities associated with potential interchange improvements is a state responsibility.

The following policy statements are added to the Investment Policies and Scenarios section of the OHP:

- Future investments by the State to increase capacity within the IAMP 61 management area shall require Josephine County to adopt IAMP 61.

Josephine County Plan and Ordinance Provisions

By adopting the provisions of the Josephine County Comprehensive Plan and Josephine County Rural Land Development Code by reference into this IAMP, ODOT will have the ability to review and weigh in on proposed amendments to plans and ordinances, prior to their adoption by Josephine County, to ensure any changes to these land use controls to avoid development that would jeopardize the achievement of the goal and objectives of the IAMP. ODOT will rely on requirements that local comprehensive plans and implementing ordinances be consistent with the Oregon Highway Plan, which includes this IAMP once the Oregon Transportation Commission adopts it, to ensure that it does not cause violation of the mobility performance standards for the interchange and related facilities.

The following provisions of the Josephine County Comprehensive Plan and Josephine County Rural Land Development Code are adopted by reference into this IAMP:

1. The Josephine County Comprehensive Plan designations within the Interchange Management Area, as shown on the Josephine County Comprehensive Plan Map and represented in Figure 2 on page 9.
2. Josephine County zoning of lands in the Interchange Management Area as shown on the Josephine County Zoning Map and shown on Figure 3, on page 10.
3. The contents of the Josephine County Comprehensive Plan regarding each of the Comprehensive Plan designations included within the Interchange Management Area as

reproduced in Tech. Memo #2 within Volume 2 of this IAMP. The designations are Commercial, Industrial, and Residential.⁶

4. The contents of the Josephine County Rural Land Development Code regarding each of the zoning districting included within the Interchange Management Area, as shown on Figure 3 of this IAMP and reproduced in Tech. Memo #2 within Volume 2 of this IAMP. The zoning districts are Community Commercial, Community Light Industrial, Rural Residential - 5, Rural Residential - 2.5, Community Residential - 2, Rural Commercial, Community Commercial, and Community Industrial Park.⁷

Additional provisions of this measure are:

1. If ODOT concludes that a proposed amendment to one of the provisions adopted into the IAMP would not be consistent with the IAMP, before seeking review of the amendment by the Oregon Land Use Board of Appeals, ODOT will work with Josephine County to attempt to reach agreement on how to resolve the issues involved.
2. ODOT will only determine that a proposed amendment to a plan or code provision adopted by reference into this IAMP is not consistent with the IAMP when the amendment would change the function or diminish the performance of the interchange. If neither is the case, ODOT will consider the amendment consistent with the IAMP.
3. ODOT will not amend the IAMP every time Josephine County amends the provisions adopted into the IAMP. ODOT will consider the amendment consistent with the IAMP.
4. If ODOT does not notify Josephine County that a proposed plan or code amendment is inconsistent with the IAMP within 60 days after receipt of notice of the amendment from the County, ODOT will not assert that the amendment is inconsistent with the IAMP.
5. Should ODOT wish to amend the IAMP, ODOT will ensure that the IAMP remains compatible with the Josephine County Comprehensive Plan.

Josephine County Infrastructure Funding

As the Interchange Management Area continues to develop, IAMP improvements will be phased in to deal with operational and safety issues. It is recommended that Josephine County adopt a funding mechanism both to support construction of the IAMP improvements and to fund future Josephine County local road system improvements.

⁶ Josephine County Comprehensive Plan, 2005

⁷ Rural Land Development Code, May 2005

Josephine County Traffic Circulation Improvements

Josephine shall identify improvements to enhance traffic circulation in the interchange area and adopt these improvements in the Transportation System Plan. Current street configurations limit circulation to just a few roadways in the area. North-south traffic accessing the schools and industrial areas in the northwest quadrant of the interchange is limited to Monument Drive. As the area develops and traffic volumes grow, the provision of additional routes will become more important. Although a roadway circulation plan is not provided in the IAMP, options should be explored in the next TSP update including the development of the right-of-way for "Grants Pass Road" that would connect Merlin Road to the north.

IAMP Implementation Summary

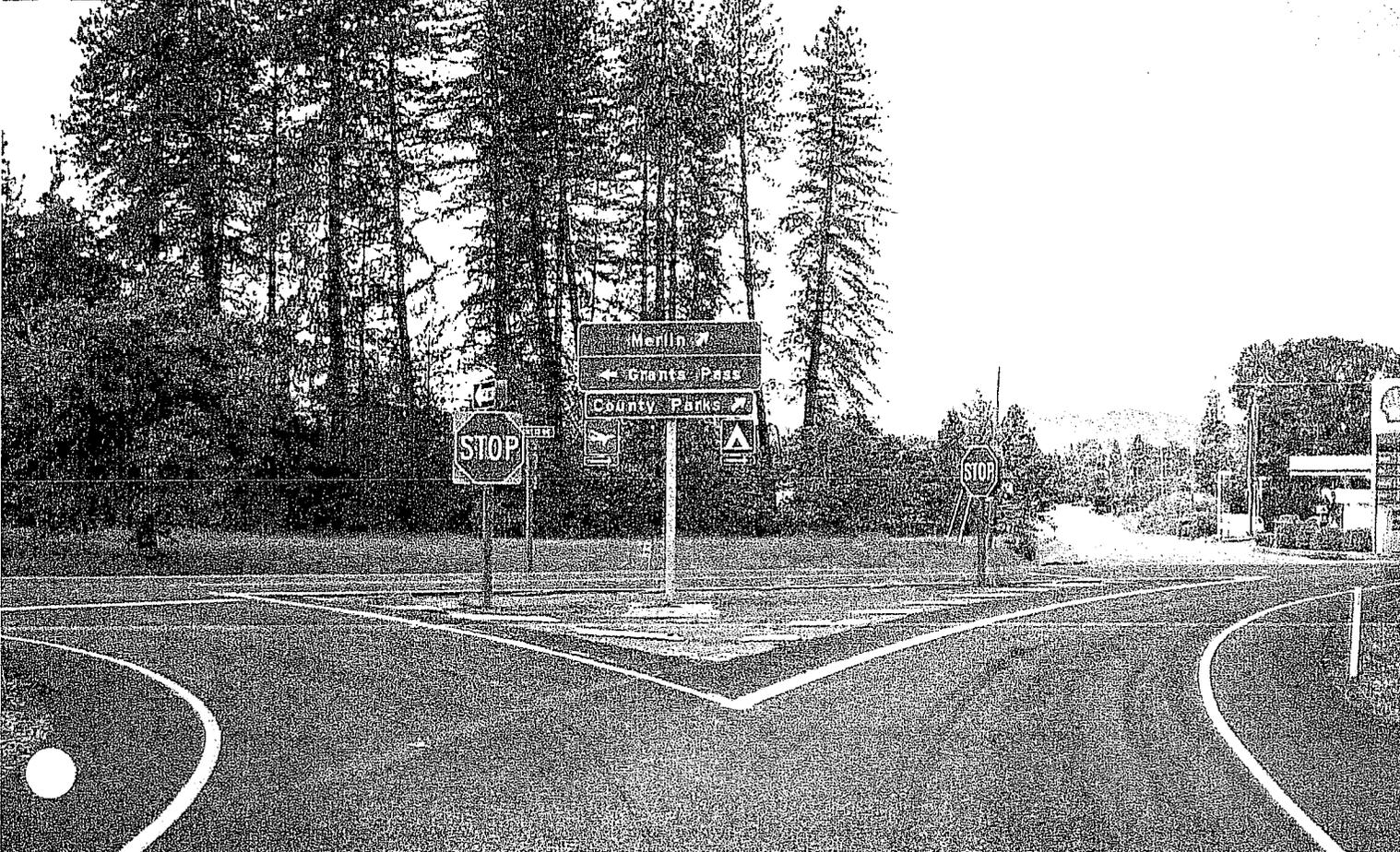
Four key actions are identified in the Interchange 61 implementation plan:

- **Adopt the Josephine County Comprehensive Plan and zoning ordinances as part of the IAMP.** This management strategy ensures that provisions in the Comprehensive Plan and Rural Land Development Code that protect the function of the interchange remain intact to avoid land development that would jeopardize the function of the interchange facility. The IAMP will be adopted as part of the Oregon Highway Plan, and ODOT will review proposed amendments to the provisions of the Josephine Comprehensive Plan and the zoning ordinance within the Interchange Management Area to ensure they are consistent with the IAMP. ODOT will work with Josephine County to resolve issues with proposed amendments prior to seeking review of the Oregon Land Use Board of Appeals. This management strategy applies to lands in the Interchange Management Area as shown on the Josephine County Zoning Map and shown on Figure 3, on page 10.
- **Create a local funding mechanism to pay for improvements.** As the interchange Management Area continues to develop, IAMP improvements will be phased in to deal with operational and safety issues. Josephine County should implement a local funding mechanism to generate funds to help pay for the phases of improvements needed to respond to the increased travel demand generated by new development, and to pay for improvements to the local road network. Funds could also be used to improve facilities for alternative transportation options (such as sidewalks and bike lanes) in order to reduce demand.
- **Enhance the local street network to support future development and address access in the vicinity of the interchange.** Improving the local street network in the vicinity of the interchange is important to maximizing the life of Interchange 61. In particular, only one roadway (Monument Drive) provides access from the Interchange Management Area to the northwest quadrant of the interchange, where two schools and existing industrial centers are located and future development is anticipated. This IAMP does not include the provision of an additional north-south roadway, but it encourages the county to look for opportunities to improve access from Merlin Road to the north and adopt a planned set of improvements into their TSP. *A preferred street network is not identified in the IAMP planning process and will depend on recommendations for long-range improvements included in the Josephine County Transportation System Plan.*

- **Implement the actions in the Access Management Plan for the Interchange Management Area.** Implementation of the access management plan is critical to the long-term safe and efficient operations of the interchange. Local street network enhancements, in conjunction with access management improvements in the Interchange 61 area, should be implemented. *A preferred network and associated access management recommendations have not yet been identified in the IAMP planning process and will depend on recommendations for long-range improvements at the interchange.*

COORDINATION

As part of any construction effort of the “preferred alternative” or its component parts contained within this IAMP, ODOT shall inform and coordinate with Josephine County Public Works and local emergency service providers.



**I-5 Interchange 61 (Louse Creek)
Interchange Area Management Plan
Volume 2: Reference Material**

Prepared by:



Prepared for:

Oregon Department of
Transportation



EXHIBIT

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