

**DATE:** February 9, 2010  
**TO:** Oregon Transportation Commission  
**FROM:** Matthew L. Garrett  
Director  
**SUBJECT:** I-5/Coburg Interchange Area Management Plan

**Requested Action:**

Adoption of the I-5/Coburg Interchange Area Management Plan (IAMP).

**Background:**

The Coburg IAMP has been prepared pursuant to OAR 734-0051-0155(b) and the ODOT Guidelines for Preparation of Interchange Area Management Plans. ODOT has worked with the City of Coburg and Lane County to determine and agree future interchange improvement needs and appropriate ways to manage the area's land use and transportation system to support the interchange's function and operations over the next 20 years, before and after improvements are made to the interchange. The IAMP and supporting ordinances were adopted by the City of Coburg in April 2009 and by Lane County in October 2009. The policy and management provisions of the final IAMP, including the adoption actions of the City and County have been reviewed and are supported by the DOJ.

*Attachments*

- A *IAMP Executive Summary*
- B *Findings of Consistency with OAR 731-0015-0055 and 0065*

*Copies (w/attachments) to:*

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# Coburg/Interstate 5 Interchange Area Management Plan

Prepared for  
**Oregon Department of Transportation**

January 2010

Prepared for ODOT Region 2 by

**CH2MHILL**





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## **Insert: Memorializing Compatibility Between the City of Coburg and Lane County Adopted Coburg IAMP Language**

On October 20, 2009 the Lane County Commission adopted the Coburg Interchange Area Management Plan (IAMP). Their adoption included several amendments to the final IAMP previously adopted by the City of Coburg in April 2009. Because Coburg's City Limits and Urban Growth Boundary (UGB) are co-terminus, Lane County and Coburg share no common jurisdiction. As a result, Lane County has no specific regulatory authority within the existing Coburg City Limits or UGB. Consequently, ODOT has determined that the County's changes can apply within the limits of the County's jurisdiction and authority without affecting the City's April adoption and are, therefore, otherwise compatible with the final draft adopted by the City of Coburg.

The principal affect of the changes associated with the County's adoption is that it slightly modifies the function statement in Chapter 1 of the IAMP. The document adopted by the City states that *"it is not the primary function of the Coburg/I-5 interchange to serve additional or expanded commercial land uses (beyond the existing zoned potential) or regional commercial development."* In its adoption action, the County amended this to state that *"it is not the function of the Coburg/I-5 interchange to serve additional or expanded commercial development within the interchange management area beyond those uses currently allowed on land currently in the existing Industrial and Highway Commercial zones."*

As the City had previously adopted the original IAMP language and because the County only has authority within its own jurisdiction and not within the Coburg City Limits or UGB, the change made by the county simply means that any land use actions proposed within the County's portion of the IAMP management area overlay will be subject to the County's interpretation of their modified function statement. Consequently, the County version of the function statement applies solely to land that is presently zoned County EFU, outside of the City Limits and UGB. As a more stringent expression of the intent of the function statement adopted by the City that does not apply to land within the City Limits or UGB, ODOT has determined that this statement is compatible with the City's previous action and with the final draft adopted by the City of Coburg in April 2009.

The slight change to the function statement in Chapter 1 also resulted in a County change to Policy 5 in Chapter 6. Policy 5 in the final draft adopted by the City of Coburg in April 2009 read as follows:

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(ramp terminal V/C  $\leq 0.8$ ). ODOT will also work with the County to modify the alternative mobility standards set for the Pearl Street/Coburg Industrial Way intersection.

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As is the case with the function statement in Chapter 1, this modified language is only applicable to the County EFU land within the IAMP management area overlay. Because any change to the City Limits or UGB proposed by a private applicant or the City will be subject to County approval, linking this policy to the function statement preferred by the County for the EFU land within its jurisdiction is compatible with the final draft adopted by the City of Coburg in April 2009.

Finally, discussions with property owners and the County regarding the extent of access control purchase on Van Duyn Road east of I-5 yielded one additional change to the Coburg IAMP as per Lane County's adoption action in October 2009. Rather than extending future purchase of access control along Van Duyn Road all the way to Hereford Road, as stated in the Coburg IAMP adopted by the City of Coburg in April 2009, ODOT agreed to limit the future purchase of access control, north and south of Van Duyn Road, to a point coinciding with the northwestern boundary of the Diamond Ridge subdivision (Tax Lot 16-03-34-00400) at Station "V" 43+63.23 which is approximately 2,000 feet east of the northbound ramp terminal. This distance still greatly exceeds the OHP and Division 51 access safety spacing standard of 1320 feet for an Interstate cross road and, because the portion of Van Duyn Road that will now be excluded from future access control purchase is fully within Lane County's jurisdiction and affects nothing within the City of Coburg's jurisdiction, this difference remains compatible with the adoption action taken by the City in April 2009.

# Acknowledgements

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# Executive Summary

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The Coburg/Interstate 5 (I-5) interchange, located on I-5 at milepost 199.15 adjacent to the City of Coburg, is no longer able to meet existing and forecast travel demand and is in need of modifications and improvements. This Interchange Area Management Plan (IAMP) documents the land use and transportation strategies developed to protect the function<sup>1</sup> of the Coburg/I-5 interchange over the long-term (20-plus years) in light of these planned improvements, as directed by Oregon Administrative Rule (OAR) 734-051-0155(6). The Coburg/I-5 interchange is of interest for protection because much of the adjacent land is vacant and could potentially be developed, adding more traffic to the interchange area.

This document includes a complete description of the IAMP development process, including existing conditions analysis, no-build future analysis, alternative analysis, and description of the Recommended Alternative, including physical, access management, and policy and code recommendations. Recommendations for the Coburg/I-5 interchange area are presented as short-term, medium-term, and long-term. This IAMP was prepared collaboratively with the Oregon Department of Transportation (ODOT), Lane County, and the City of Coburg in coordination with the Lane Council of Governments (LCOG).

## Background

The Coburg/I-5 interchange was proposed for reconstruction in the 1999 *Coburg-Interstate 5 Interchange Refinement Plan* (Refinement Plan), which was adopted as part of the 1999 *City of Coburg Transportation System Plan* (Coburg TSP). This IAMP re-examines the recommended conceptual design outlined in the Refinement Plan, given changes in land uses and population and employment forecasts in the interchange area, along with changes in highway policy regarding interchange improvements, since 1999.

Primary infrastructure improvements included in the Refinement Plan are the reconstruction of a standard diamond interchange and the realignment of Roberts Road to intersect with Coburg Industrial Way at a signalized intersection. This IAMP concludes that the original Preferred Concept included in the Refinement Plan is generally sufficient to address congestion problems for the planning horizon of 2031 – when the Refinement Plan interchange design concept is slightly modified with a four-lane bridge and when it is paired with policy and management tools.

## Existing and Future Conditions

The existing Coburg interchange facility is not adequate to accommodate anticipated employment and population growth as outlined in Coburg's 2005 *Comprehensive Plan*

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<sup>1</sup> As used in the state IAMP Guidelines (David Evans and Associates, Inc., with Angelo Eaton & Associates, July 2006), the term "function" refers to the intended role of the interchange in the transportation system. Although functional classification of the intersecting roads is one element that determines the overall function of an interchange, the term "function" also relates to its context (e.g. urban, rural, surrounding land uses it is intended to serve).

and consistent with Regional Transportation Plan (RTP) employment and population forecasts. Traffic operations analysis performed for this IAMP shows that by study planning horizon year 2031, three of five study area intersections (Pearl Street/Industrial Way, Pearl Street/Roberts Road, I-5 Southbound Ramps/Pearl Street) are expected to not meet accepted mobility standards during the peak PM travel hour if no additional transportation infrastructure is constructed and no policy measures are enacted. Two of the five study area intersections (Pearl Street/Industrial Way and Pearl Street/Roberts Road) are anticipated to operate under conditions where volume would exceed capacity during the peak PM travel hour. This would generate high levels of delay and congestion, and vehicles would be expected to queue onto the I-5 mainline. Operations analysis shows that a new traffic signal will be required by 2031 at the I-5 Southbound Ramps/Pearl Street intersection to meet mobility standards. Existing and future conditions are discussed in greater detail in Sections 2 and 3 of this IAMP.

## Alternatives Developed and Analyzed

Alternatives development and analysis for this IAMP were based on traffic forecasts built from population and employment forecasts consistent with the land use patterns in Coburg's existing Comprehensive Plan.

Alternatives developed are also consistent with the 2031 federal Regional Transportation Plan (RTP) for the Central Lane Metropolitan Planning Organization (CLMPO) and the 2004 *Coburg Urbanization Study*. The *Coburg Urbanization Study* is a document that was adopted by Coburg City Council, but never formally incorporated into the Comprehensive Plan. The RTP and the *Urbanization Study* both outline greater population and employment growth than could be accommodated under the City's current Comprehensive Plan land use designations. Consistency of alternative development with these plans is important in order to (1) be consistent with regional planning, and (2) provide realistic solutions, given the likelihood of urban growth boundary (UGB) amendments.

The existing UGB will not accommodate the City's 2025 population and employment forecasts extrapolated to 2031, as identified in the RTP. However, pending resolution about how to develop a municipal wastewater system for Coburg, UGB amendments will likely be proposed by the City. The extent and location of these amendments are yet to be determined. Currently, the *Coburg Comprehensive Plan* provides for growth within the City's existing UGB west of I-5. If amended, an expanded UGB (regardless of whether it is expanded west of I-5 or east of I-5) is expected to provide for the full growth anticipated in the RTP and commensurate with the City's regionally adopted population and employment forecasts.

Physical interchange improvement alternatives focused on several conceptual designs:

- Alternative A: Diamond interchange with three-lane bridge
- Alternative B: Diamond interchange with four-lane bridge
- Alternative C: Loop ramp (northbound) interchange with four-lane bridge

Analysis of all of the physical alternatives considered the following common components:

- Bicycle and pedestrian facilities on the bridge
- Access management that supports interchange function and operations on Pearl Street/Van Duyn Road east and west of the interchange
- Realignment of Roberts Road at a signalized intersection with Coburg Industrial Way
- Closure of the existing Roberts Road at Pearl Street
- A new signal at the I-5 Southbound Ramps/Pearl Street intersection
- The eventual development of a local street system west of I-5 off Coburg Industrial Way to reduce demand for direct access to Pearl Street

All physical alternatives also were assumed to be paired with policy and development code language intended to protect the function and operations of the interchange (e.g., an alternate mobility standard to protect any excess capacity provided by an improvement, traffic impact analysis requirements, and encouragement of transit and transportation demand management (TDM)).

Alternative B—the diamond interchange with a four-lane bridge—was ultimately recommended by the Project Management Team (PMT) as the Recommended Alternative for this IAMP.

Analysis regarding population and employment growth scenarios different from those in the Comprehensive Plan (e.g., UGB expansion and population and employment growth patterns east of I-5) is included as a point of reference for the City of Coburg in Appendix K. If a UGB expansion and subsequent Comprehensive Plan amendment were to occur, this IAMP would need to be updated accordingly.

The alternatives analysis is discussed in greater detail in Section 4 of this IAMP.

## Interchange Area Management Plan

A Recommended Alternative was agreed to by ODOT, the City, and Lane County. *The IAMP concludes that the original Preferred Concept included in the Refinement Plan is generally sufficient to address congestion problems for the planning horizon of 2031 – if the interchange design concept is slightly modified and when it is paired with policy and management tools.* To maximize the operation of the interchange and accommodate planned future growth, the IAMP identifies a Recommended Alternative that includes: (1) operational and physical improvements, including access management, and (2) local policy and development code changes.

### Recommended Alternative—Operational and Physical Improvements

The Recommended Alternative infrastructure improvements include physical improvements that accommodate the anticipated traffic growth related to the population and employment growth outlined in the *Coburg Comprehensive Plan*,

including a diamond interchange with a four-lane bridge structure (see Figure 5-1). Although a three-lane bridge would accommodate traffic levels anticipated for 2031, a four-lane bridge is preferred because it will better accommodate the heavy north-to-west movement from the I-5 northbound off-ramp, in addition to extending the life of the bridge structure past 2031 for minimal additional cost. A four-lane bridge would also provide future flexibility for the addition of a loop ramp if determined necessary at some point after the 2031 planning horizon, for example, if greater levels of growth are anticipated in the area.

The Recommended Alternative includes the following physical improvements and associated actions to be implemented by ODOT, the City, and Lane County:<sup>2</sup>

- Reconstruct the Coburg/I-5 interchange bridge structure to four lanes, with full standard pedestrian and bicycle facilities, and an appropriate height standard. The bridge is to include two westbound lanes with a turn pocket leading to the I-5 southbound on-ramp, one eastbound through lane, and one eastbound left-turn lane leading to the I-5 northbound on-ramp (ODOT).
- I-5 northbound ramps: Add a new I-5 northbound on-ramp receiving lane. Add new exclusive eastbound left-turn lane to I-5 northbound off-ramp (ODOT).
- I-5 Southbound ramps: Install a new exclusive eastbound right-turn lane on Pearl Street and southbound on-ramp receiving lane (ODOT).
- Signalize the I-5 southbound ramp terminals by 2031 or sooner if signal warrants are met and the signal is approved by the State Traffic Engineer (ODOT).
- Realign Roberts Road to meet the existing signalized Coburg Industrial Way intersection. The newly realigned Roberts Road would be constructed to road standards that accommodate freight vehicles (ODOT).
- Add a new connection between the aligned Roberts Road and original Roberts Road (ODOT).
- Purchase access control and do not allow any new private accesses west of I-5 along Pearl Street from the interchange ramp to a point 1,000 feet west of Coburg Industrial Way. In the interim, allow the Stuart Way driveway access at Pearl Street. Upon redevelopment of the Truck and Travel site (located east and west of Stuart Way), realign Stuart Way west of its current location to improve spacing with Coburg Industrial Way.
- Close access to the original Roberts Road at Pearl Street. This closure would only occur after or at the same time as the opening of the new Roberts Road/Coburg Industrial Way intersection to ensure continuous business access. A cul-de-sac will

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<sup>2</sup> ODOT would purchase impacted private property or private accesses as a result of any of the physical improvements within the interchange management area identified as ODOT's responsibility in this IAMP. Access and circulation plans will be coordinated with affected property owners.

be constructed at the north termination of the original Roberts Road that is navigable for WB-67 trucks<sup>3</sup> (ODOT).

- Coordinate traffic signal operations along Pearl Street and at interchange ramp terminal intersections (ODOT/Lane County).
- Install a new southbound left-turn lane and northbound left-turn pocket on Coburg Industrial Way (and realigned Roberts Road) at Pearl Street (ODOT).
- Purchase access control and do not allow any new private access east of I-5 along Van Duyn Road from the interchange ramp terminal to Hereford Road and do not allow any full accesses within 1,320 feet of the interchange ramp terminal (ODOT). In the interim, allow the properties within the UGB to continue to access Van Duyn directly from within the UGB. Upon redevelopment of one or more of these properties within the current UGB, implement changes to this access as needed to address safety issues or seek development and use of the access road right-of-way purchased by ODOT during the initial phase of the interchange project if it has not already been developed as part of a subsequent phase of the interchange project (ODOT).
- Consolidate all accesses on the southern side of Van Duyn Road to a point at least 1,320 feet from the north-bound ramp terminal intersection. Close accesses less than 1,320 feet from this location and construct an alternate access road. This road may be constructed by ODOT and maintained as a public road by Lane County or the City of Coburg, or it may be constructed privately in conjunction with redevelopment of properties within the Coburg UGB east of I-5, depending on the timing and availability of funds to construct future phases of the interchange project
- The eventual construction of this access road will require an exception to Goal 3 of the Statewide Land Use Planning Goals, the reasons for which are summarized in Appendix L. If an exception is not granted by Lane County, ODOT will need to develop another alternative access for urban properties east of the interstate (ODOT, other responsible parties).
- Work with Lane Transit District to expand bus rapid transit to Coburg (City of Coburg).
- Market Lane Transit District's Group Pass Program to employers, and promote carpool and vanpool services (City of Coburg).
- Implement local circulation improvements consistent with the Coburg TSP that provide alternative circulation and access for the lane north of Pearl Street and west of I-5 within the IAMP study area (City of Coburg).
- Design and construct the northern and southern connection alignments (extending Coburg Industrial Way north and Roberts Road south) as depicted in Map 16 of the Coburg TSP (City of Coburg).
- As Coburg develops, monitor the need for a park-and-ride (City of Coburg).

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<sup>3</sup> A truck with approximately 67 feet between the front and rear wheel axle.

The Recommended Alternative physical and operational recommendations are discussed in greater detail in Section 5 of this IAMP.

### **Recommended Alternative—Access Management**

To protect these infrastructure investments, access management recommendations were also developed as part of the Recommended Alternative, as shown in Figure 5-1. The Access Management Plan reduces by 11 the number of private and public accesses onto Pearl Street and Van Duyn Road by the year 2031. The Access Management Plan identifies access management actions that improve safety and circulation in the interchange management area by moving access spacing along Pearl Street and Van Duyn Road to more closely align with access management standards as defined in the Oregon Highway Plan. For the Coburg/I-5 IAMP, the target spacing standard is 1,320 feet from the ramp terminal intersection for placement of the next road or driveway.

The Access Management Plan identifies driveways and local road connections that will need to be relocated, consolidated, or closed to achieve the safety and mobility objectives of the state's access management standards. Relocation, consolidation, or closure of driveways will be paired with enhancement of the local street circulation system.

These access recommendations are discussed in greater detail in Section 5, Recommended Alternative—Operational, Physical and Access Improvements.

### **Recommended Alternative—Policy and Development Code**

To accompany the infrastructure and access recommendations, the Recommended Alternative also includes policy and implementation measures. Some of these implementing measures are intended to protect the interchange infrastructure investments through management of access within the interchange study area. Others require that future development mitigate traffic impacts associated with development proposals that are projected to create more traffic growth than planned for in the *Coburg Comprehensive Plan*. The IAMP also includes policies that are to be adopted by the Oregon Transportation Commission (OTC), City of Coburg, and Lane County.

The IAMP policies specifically address access management and also special interchange and local road mobility standards intended to protect the function of the interchange until such time as the City of Coburg resolves its wastewater service issues and amends its Urban Growth Boundary and Comprehensive Plan.

The IAMP also includes recommendations for development code changes in the City of Coburg related to Traffic Impact Analysis. The recommended alternative policy and development code recommendations are discussed in greater detail in Sections 6 and 7 of this IAMP.



# Coburg / Interstate 5 Interchange Area Management Plan

JANUARY 2010



Prepared for

**Oregon Department  
of Transportation**

Prepared by

**CH2MHILL**





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# Acronyms and Abbreviations

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ADT	average daily traffic
AM	morning
ATR	automatic traffic recorder
BRT	bus rapid transit
CLMPO	Central Lane Metropolitan Planning Organization
DLCD	Department of Land Conservation and Development
FEMA	Federal Emergency Management Agency
HDM	Highway Design Manual
I-5	Interstate 5
IAMP	Interchange Area Management Plan
LCOG	Lane Council of Governments
LOS	level of service
LTD	Lane Transit District
LWI	Local Wetland Inventory
MEV	million entering vehicles
MOU	Memorandum of Understanding
MP	milepost
MPO	Metropolitan Planning Organization
NHS	National Highway System
NWI	National Wetlands Inventory
OAR	Oregon Administrative Rule
ODOT	Oregon Department of Transportation
OHP	<i>Oregon Highway Plan</i>
OTC	Oregon Transportation Commission
OTIA	Oregon Transportation Investment Act
OTP	<i>Oregon Transportation Plan</i>
PM	afternoon/evening
PMT	Project Management Team
RTP	Regional Transportation Plan
SPIS	Safety Priority Index System

STIP	State Transportation Improvement Program
TAZ	Transportation Analysis Zone
TDM	transportation demand management
TIA	traffic impact analysis
TMC	turning movement count
TPR	Transportation Planning Rule
TSP	Transportation System Plan
UGB	urban growth boundary
V/C	volume-to-capacity ratio
VMT	vehicle miles traveled

# Executive Summary

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The Coburg/Interstate 5 (I-5) interchange, located on I-5 at milepost 199.15 adjacent to the City of Coburg, is no longer able to meet existing and forecast travel demand and is in need of modifications and improvements. This Interchange Area Management Plan (IAMP) documents the land use and transportation strategies developed to protect the function<sup>1</sup> of the Coburg/I-5 interchange over the long-term (20-plus years) in light of these planned improvements, as directed by Oregon Administrative Rule (OAR) 734-051-0155(6). The Coburg/I-5 interchange is of interest for protection because much of the adjacent land is vacant and could potentially be developed, adding more traffic to the interchange area.

This document includes a complete description of the IAMP development process, including existing conditions analysis, no-build future analysis, alternative analysis, and description of the Recommended Alternative, including physical, access management, and policy and code recommendations. Recommendations for the Coburg/I-5 interchange area are presented as short-term, medium-term, and long-term. This IAMP was prepared collaboratively with the Oregon Department of Transportation (ODOT), Lane County, and the City of Coburg in coordination with the Lane Council of Governments (LCOG).

## Background

The Coburg/I-5 interchange was proposed for reconstruction in the 1999 *Coburg-Interstate 5 Interchange Refinement Plan* (Refinement Plan), which was adopted as part of the 1999 *City of Coburg Transportation System Plan* (Coburg TSP). This IAMP re-examines the recommended conceptual design outlined in the Refinement Plan, given changes in land uses and population and employment forecasts in the interchange area, along with changes in highway policy regarding interchange improvements, since 1999.

Primary infrastructure improvements included in the Refinement Plan are the reconstruction of a standard diamond interchange and the realignment of Roberts Road to intersect with Coburg Industrial Way at a signalized intersection. This IAMP concludes that the original Preferred Concept included in the Refinement Plan is generally sufficient to address congestion problems for the planning horizon of 2031 – when the Refinement Plan interchange design concept is slightly modified with a four-lane bridge and when it is paired with policy and management tools.

## Existing and Future Conditions

The existing Coburg interchange facility is not adequate to accommodate anticipated employment and population growth as outlined in Coburg's 2005 *Comprehensive Plan* and consistent with Regional Transportation Plan (RTP) employment and population forecasts.

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<sup>1</sup> As used in the state IAMP Guidelines (David Evans and Associates, Inc., with Angelo Eaton & Associates, July 2006), the term "function" refers to the intended role of the interchange in the transportation system. Although functional classification of the intersecting roads is one element that determines the overall function of an interchange, the term "function" also relates to its context (e.g. urban, rural, surrounding land uses it is intended to serve).

Traffic operations analysis performed for this IAMP shows that by study planning horizon year 2031, three of five study area intersections (Pearl Street/Industrial Way, Pearl Street/Roberts Road, I-5 Southbound Ramps/Pearl Street) are expected to not meet accepted mobility standards during the peak PM travel hour if no additional transportation infrastructure is constructed and no policy measures are enacted. Two of the five study area intersections (Pearl Street/Industrial Way and Pearl Street/Roberts Road) are anticipated to operate under conditions where volume would exceed capacity during the peak PM travel hour. This would generate high levels of delay and congestion, and vehicles would be expected to queue onto the I-5 mainline. Operations analysis shows that a new traffic signal will be required by 2031 at the I-5 Southbound Ramps/Pearl Street intersection to meet mobility standards. Existing and future conditions are discussed in greater detail in Sections 2 and 3 of this IAMP.

## Alternatives Developed and Analyzed

Alternatives development and analysis for this IAMP were based on traffic forecasts built from population and employment forecasts consistent with the land use patterns in Coburg's existing Comprehensive Plan.

Alternatives developed are also consistent with the 2031 federal Regional Transportation Plan (RTP) for the Central Lane Metropolitan Planning Organization (CLMPO) and the *2004 Coburg Urbanization Study*. The *Coburg Urbanization Study* is a document that was adopted by Coburg City Council, but never formally incorporated into the Comprehensive Plan. The RTP and the *Urbanization Study* both outline greater population and employment growth than could be accommodated under the City's current Comprehensive Plan land use designations. Consistency of alternative development with these plans is important in order to (1) be consistent with regional planning, and (2) provide realistic solutions, given the likelihood of urban growth boundary (UGB) amendments.

The existing UGB will not accommodate the City's 2025 population and employment forecasts extrapolated to 2031, as identified in the RTP. However, pending resolution about how to develop a municipal wastewater system for Coburg, UGB amendments will likely be proposed by the City. The extent and location of these amendments are yet to be determined. Currently, the *Coburg Comprehensive Plan* provides for growth within the City's existing UGB west of I-5. If amended, an expanded UGB (regardless of whether it is expanded west of I-5 or east of I-5) is expected to provide for the full growth anticipated in the RTP and commensurate with the City's regionally adopted population and employment forecasts.

Physical interchange improvement alternatives focused on several conceptual designs:

- Alternative A: Diamond interchange with three-lane bridge
- Alternative B: Diamond interchange with four-lane bridge
- Alternative C: Loop ramp (northbound) interchange with four-lane bridge

Analysis of all of the physical alternatives considered the following common components:

- Bicycle and pedestrian facilities on the bridge
- Access management that supports interchange function and operations on Pearl Street/ Van Duyn Road east and west of the interchange
- Realignment of Roberts Road at a signalized intersection with Coburg Industrial Way
- Closure of the existing Roberts Road at Pearl Street
- A new signal at the I-5 Southbound Ramps/Pearl Street intersection
- The eventual development of a local street system west of I-5 off Coburg Industrial Way to reduce demand for direct access to Pearl Street

All physical alternatives also were assumed to be paired with policy and development code language intended to protect the function and operations of the interchange (e.g., an alternate mobility standard to protect any excess capacity provided by an improvement, traffic impact analysis requirements, and encouragement of transit and transportation demand management (TDM)).

Alternative B—the diamond interchange with a four-lane bridge—was ultimately recommended by the Project Management Team (PMT) as the Recommended Alternative for this IAMP.

Analysis regarding population and employment growth scenarios different from those in the Comprehensive Plan (e.g., UGB expansion and population and employment growth patterns east of I-5) is included as a point of reference for the City of Coburg in Appendix K. If a UGB expansion and subsequent Comprehensive Plan amendment were to occur, this IAMP would need to be updated accordingly.

The alternatives analysis is discussed in greater detail in Section 4 of this IAMP.

## Interchange Area Management Plan

A Recommended Alternative was agreed to by ODOT, the City, and Lane County. *The IAMP concludes that the original Preferred Concept included in the Refinement Plan is generally sufficient to address congestion problems for the planning horizon of 2031 – if the interchange design concept is slightly modified and when it is paired with policy and management tools.* To maximize the operation of the interchange and accommodate planned future growth, the IAMP identifies a Recommended Alternative that includes: (1) operational and physical improvements, including access management, and (2) local policy and development code changes.

### Recommended Alternative—Operational and Physical Improvements

The Recommended Alternative infrastructure improvements include physical improvements that accommodate the anticipated traffic growth related to the population and employment growth outlined in the *Coburg Comprehensive Plan*, including a diamond interchange with a four-lane bridge structure (see Figure 5-1). Although a three-lane bridge would accommodate traffic levels anticipated for 2031, a four-lane bridge is preferred

because it will better accommodate the heavy north-to-west movement from the I-5 northbound off-ramp, in addition to extending the life of the bridge structure past 2031 for minimal additional cost. A four-lane bridge would also provide future flexibility for the addition of a loop ramp if determined necessary at some point after the 2031 planning horizon, for example, if greater levels of growth are anticipated in the area.

The Recommended Alternative includes the following physical improvements and associated actions to be implemented by ODOT, the City, and Lane County:<sup>2</sup>

- Reconstruct the Coburg/I-5 interchange bridge structure to four lanes, with full standard pedestrian and bicycle facilities, and an appropriate height standard. The bridge is to include two westbound lanes with a turn pocket leading to the I-5 southbound on-ramp, one eastbound through lane, and one eastbound left-turn lane leading to the I-5 northbound on-ramp (ODOT).
- I-5 northbound ramps: Add a new I-5 northbound on-ramp receiving lane. Add new exclusive eastbound left-turn lane to I-5 northbound off-ramp (ODOT).
- I-5 Southbound ramps: Install a new exclusive eastbound right-turn lane on Pearl Street and southbound on-ramp receiving lane (ODOT).
- Signalize the I-5 southbound ramp terminals by 2031 or sooner if signal warrants are met and the signal is approved by the State Traffic Engineer (ODOT).
- Realign Roberts Road to meet the existing signalized Coburg Industrial Way intersection. The newly realigned Roberts Road would be constructed to road standards that accommodate freight vehicles (ODOT).
- Add a new connection between the aligned Roberts Road and original Roberts Road (ODOT).
- Purchase access control and do not allow any new private accesses west of I-5 along Pearl Street from the interchange ramp to a point 1,000 feet west of Coburg Industrial Way. In the interim, allow the Stuart Way driveway access at Pearl Street. Upon redevelopment of the Truck and Travel site (located east and west of Stuart Way), realign Stuart Way west of its current location to improve spacing with Coburg Industrial Way.
- Close access to the original Roberts Road at Pearl Street. This closure would only occur after or at the same time as the opening of the new Roberts Road/Coburg Industrial Way intersection to ensure continuous business access. A cul-de-sac will be constructed at the north termination of the original Roberts Road that is navigable for WB-67 trucks<sup>3</sup> (ODOT).
- Coordinate traffic signal operations along Pearl Street and at interchange ramp terminal intersections (ODOT/Lane County).

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<sup>2</sup> ODOT would purchase impacted private property or private accesses as a result of any of the physical improvements within the interchange management area identified as ODOT's responsibility in this IAMP. Access and circulation plans will be coordinated with affected property owners.

<sup>3</sup> A truck with approximately 67 feet between the front and rear wheel axle.

- Install a new southbound left-turn lane and northbound left-turn pocket on Coburg Industrial Way (and realigned Roberts Road) at Pearl Street (ODOT).
- Purchase access control and do not allow any new private access east of I-5 along Van Duyn Road from the interchange ramp terminal to Hereford Road and do not allow any full accesses within 1,320 feet of the interchange ramp terminal (ODOT). In the interim, allow the properties within the UGB to continue to access Van Duyn directly from within the UGB. Upon redevelopment of one or more of these properties within the current UGB, implement changes to this access as needed to address safety issues or seek development and use of the access road right-of-way purchased by ODOT during the initial phase of the interchange project if it has not already been developed as part of a subsequent phase of the interchange project (ODOT).
- Consolidate all accesses on the southern side of Van Duyn Road to a point at least 1,320 feet from the north-bound ramp terminal intersection. Close accesses less than 1,320 feet from this location and construct an alternate access road. This road may be constructed by ODOT and maintained as a public road by Lane County or the City of Coburg, or it may be constructed privately in conjunction with redevelopment of properties within the Coburg UGB east of I-5, depending on the timing and availability of funds to construct future phases of the interchange project
- The eventual construction of this access road will require an exception to Goal 3 of the Statewide Land Use Planning Goals, the reasons for which are summarized in Appendix L. If an exception is not granted by Lane County, ODOT will need to develop another alternative access for urban properties east of the interstate (ODOT, other responsible parties).
- Work with Lane Transit District to expand bus rapid transit to Coburg (City of Coburg).
- Market Lane Transit District's Group Pass Program to employers, and promote carpool and vanpool services (City of Coburg).
- Implement local circulation improvements consistent with the Coburg TSP that provide alternative circulation and access for the lane north of Pearl Street and west of I-5 within the IAMP study area (City of Coburg).
- Design and construct the northern and southern connection alignments (extending Coburg Industrial Way north and Roberts Road south) as depicted in Map 16 of the Coburg TSP (City of Coburg).
- As Coburg develops, monitor the need for a park-and-ride (City of Coburg).

The Recommended Alternative physical and operational recommendations are discussed in greater detail in Section 5 of this IAMP.

### **Recommended Alternative—Access Management**

To protect these infrastructure investments, access management recommendations were also developed as part of the Recommended Alternative, as shown in Figure 5-1. The Access Management Plan reduces by 11 the number of private and public accesses onto Pearl Street and Van Duyn Road by the year 2031. The Access Management Plan identifies access

management actions that improve safety and circulation in the interchange management area by moving access spacing along Pearl Street and Van Duyn Road to more closely align with access management standards as defined in the Oregon Highway Plan. For the Coburg/I-5 IAMP, the target spacing standard is 1,320 feet from the ramp terminal intersection for placement of the next road or driveway.

The Access Management Plan identifies driveways and local road connections that will need to be relocated, consolidated, or closed to achieve the safety and mobility objectives of the state's access management standards. Relocation, consolidation, or closure of driveways will be paired with enhancement of the local street circulation system.

These access recommendations are discussed in greater detail in Section 5, Recommended Alternative – Operational, Physical and Access Improvements.

### **Recommended Alternative—Policy and Development Code**

To accompany the infrastructure and access recommendations, the Recommended Alternative also includes policy and implementation measures. Some of these implementing measures are intended to protect the interchange infrastructure investments through management of access within the interchange study area. Others require that future development mitigate traffic impacts associated with development proposals that are projected to create more traffic growth than planned for in the *Coburg Comprehensive Plan*. The IAMP also includes policies that are to be adopted by the Oregon Transportation Commission (OTC), City of Coburg, and Lane County.

The IAMP policies specifically address access management and also special interchange and local road mobility standards intended to protect the function of the interchange until such time as the City of Coburg resolves its wastewater service issues and amends its Urban Growth Boundary and Comprehensive Plan.

The IAMP also includes recommendations for development code changes in the City of Coburg related to Traffic Impact Analysis. The recommended alternative policy and development code recommendations are discussed in greater detail in Sections 6 and 7 of this IAMP.

# Background

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## 1.1 Purpose and Intent

The *Coburg/Interstate 5 Interchange Area Management Plan* (IAMP) documents a plan for protecting the function<sup>4</sup> of the Coburg/Interstate 5 (I-5) interchange. The purpose of this IAMP is to ensure that public investments in state infrastructure are protected through an integration of transportation and land use planning at the city, county and state levels.

Oregon Administrative Rule (OAR) 734-051-0155(6) states: “Interchange Area Management Plans are required for new interchanges and should be developed for significant modifications to existing interchanges...” This IAMP addresses the planned reconstruction of the Coburg/I-5 interchange, located at milepost (MP) 199.15 along I-5 adjacent to the City of Coburg (City; Coburg) in Lane County, Oregon. The reconstruction is intended to address existing and future safety and congestion issues.

The Coburg/I-5 interchange initially was proposed for reconstruction in the 1999 *Coburg-Interstate 5 Interchange Refinement Plan* (Refinement Plan).<sup>5</sup> This IAMP re-examines the recommended conceptual design outlined in the *Refinement Plan*, given changes in land uses and population and employment forecasts in the interchange area, along with highway policy regarding interchange improvements, since 1999.

The IAMP recommends: (1) operational and physical improvements, including access management, and (2) local policy and development code changes.

This IAMP is a collaborative document and reflects coordination among the Oregon Department of Transportation (ODOT), the City of Coburg, and Lane County. Preparation of this document was conducted in accordance with state IAMP guidelines.<sup>6</sup>

## 1.2 Problem Statement

Without improvements to the Coburg/I-5 interchange and transportation infrastructure in the interchange area, future PM peak hour traffic is expected to exceed available road capacity at many intersections in the interchange area, leading to highly congested conditions by 2031. Congestion is expected to affect the I-5 mainline and nearby intersections along Pearl Street/Van Duyn Road, the interchange’s local crossroad and Coburg’s primary east-west arterial road. Additional congestion is expected to contribute to travel delay and more potential safety conflicts.

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<sup>4</sup> As used in the state IAMP Guidelines (David Evans and Associates, Inc., with Angelo Eaton & Associates, July 2006), the term “function” refers to the intended role of the interchange in the transportation system. Although functional classification of the intersecting roads is one element that determines the overall function of an interchange, the term “function” also relates to its context (e.g., urban, rural, surrounding land uses it is intended to serve).

<sup>5</sup> *Coburg-Interstate 5 Interchange Refinement Plan*. ODOT. October 1999.

<sup>6</sup> *Interchange Area Management Plan Guidelines (Final Draft)*. David Evans and Associates, Inc., with Angelo Eaton & Associates. July 2006.

The Coburg/I-5 interchange serves as the primary access to the city of Coburg. Significant numbers of regional residents residing outside of Coburg currently travel to employment in the City using the Coburg/I-5 interchange. Most of the existing Coburg employment centers are located near the Coburg/I-5 interchange.

The existing interchange ramps and bridge are not anticipated to be able to accommodate anticipated future (year 2031) traffic growth. Intersections located close to the interchange also are expected to contribute to congestion, due to queuing and delay related to vehicles turning onto or from Pearl Street. During the PM peak hour, three of the five intersections in the study area (I-5 Southbound Ramps/Van Duyn Road, Pearl Street/Coburg Industrial Way, Pearl Street/Roberts Road) are anticipated to not meet operational standards by 2031 without infrastructure or policy improvements. The addition of a traffic signal at the I-5 northbound ramps intersection was a recent effort to improve traffic operations in the interchange study area.

Along with congestion, there are safety concerns in the interchange study area. The sight distance at the interchange ramp terminals and grades approaching the interchange bridge restrict motorist line of sight and create navigation problems for trucks. The bridge structure is very narrow, and allows virtually no room for pedestrians, bicyclists, or vehicular emergencies. Particularly problematic is the queuing on the northbound interchange off-ramp during the AM peak hour where traffic routinely backs up onto I-5, creating a speed differential hazard. This problem will worsen over time.

This IAMP describes the improvements and other strategies needed in the interchange area to safely accommodate anticipated planned traffic growth. State law requires that the Coburg IAMP is completed before any funding can be released for the interchange project.

## 1.3 Project History

In 1999, the *Coburg/Interstate 5 Interchange Refinement Plan* was adopted as part of the *Coburg Transportation System Plan (TSP)*. The *Refinement Plan* and the *Coburg TSP* recommended improvements to the interchange structure and the surrounding road network in order to accommodate future traffic growth in the Coburg/I-5 interchange area and address safety concerns.

Recommended transportation improvements in the Preferred Concept of the *Refinement Plan* and in the *Coburg TSP* included the following:

- Three-lane interchange bridge structure with pedestrian and bicycle facilities and improvement to profile grade and ramps
- Realignment of Roberts Road to line up with Coburg Industrial Way at a signalized intersection<sup>7</sup>
- Access closure of the original Roberts Road at Pearl Street
- New connection between realigned Roberts Road and original Roberts Road

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<sup>7</sup> The realignment of Roberts Road and Coburg Industrial Way was to occur at the same time as access to the campground parcel located south of Truck and Travel shifts from Stuart Street to the realigned Roberts Road.

- New extension of McKenzie Street east to Coburg Industrial Way (one way heading east)
- New extension of Shane Court south to Pearl Street
- Signalization at I-5 ramps when warranted
- Stuart Way realigned or vacated
- Enhanced local road network north of Pearl Street immediately west of the interchange

Since the *Coburg TSP* and *Refinement Plan* were completed, land use changes have occurred in the Coburg/I-5 interchange area that are anticipated to affect the levels of future population and employment growth, and highway policy has changed regarding interchange improvements. This has driven the need for this IAMP.

Improvements to date within the interchange management area include a new signal at the I-5 northbound ramps/Van Duyn Road intersection, modification of the northbound ramps, the vacation of Stuart Way and a portion of E. Delaney Street, and an upgrade of Pearl Street to include pedestrian and bicycle facilities.

## 1.4 Functional Classification and Interchange Function

Functional classifications generally define the intended purpose of a roadway as part of a hierarchy of roadways. The Coburg/I-5 interchange is an urban service interchange. The interchange connects I-5 with Pearl Street/Van Duyn Road, which serves Coburg to the west, and primarily unincorporated Lane County to the east.

According to Policy 1A of the Oregon Highway Plan (OHP), the primary function of interstate freeways is to provide connections to major cities, regions of the state, and other states. The secondary function is to provide connections for regional trips within a metropolitan area. Interstates are major freight routes, and are intended to provide mobility. I-5 is part of the National Highway System (NHS). It is classified by the OHP as an Interstate Highway – NHS. I-5 is a designated North American Free Trade Agreement (NAFTA) route. I-5 stretches from the Canadian to Mexican borders, and is the major north-south interstate and freight route for the west coast states (Washington, Oregon, and California).

The local crossroad at the interchange, Pearl Street/Van Duyn Road, is the primary east-west road connection in the area, and is the only direct connection to Coburg residences and commercial and industrial land uses from I-5. Pearl Street, located west of the interchange, is classified as a County Arterial by the City of Coburg and as a Minor Arterial by Lane County. According to the *Lane County TSP*, Minor Arterials in urban areas provide for intra-community traffic flow to principal arterials. Van Duyn Road, located east of the interchange, is classified as a Local Roadway. According to the *Lane County TSP*, Local Roads are intended solely for the purpose of providing access to adjacent properties.

Several existing highway-oriented commercial facilities are located within the interchange study area, and some of the undeveloped land in the interchange area is zoned Highway Commercial.

Functional classifications of roads in the vicinity of the Coburg/I-5 interchange are summarized in Table 1-1.

TABLE 1-1  
Coburg/I-5 IAMP Ownership and City of Coburg/Lane County Functional Classification\*

Road	Jurisdiction (Ownership)	Functional Classification
Interstate 5	ODOT	Interstate Highway (NHS)
Van Duyn Road	Lane County	Local Roadway
Pearl Street	Lane County	County Arterial (Coburg) Minor Arterial (Lane County)
Coburg Industrial Way	Lane County and City of Coburg	Minor Collector (Lane County) City Collector (Coburg)
Roberts Road	City of Coburg	City Collector (Coburg)
N. and S. Coleman Street	City of Coburg	City Collector and Local Roadway
E. Mill Street	City of Coburg	City Collector and Local Roadway
E. Dixon Street	City of Coburg	City Collector and Local Roadway
N. Miller Street	City of Coburg	Local Roadway
Stuart Way	Private Road	Vacated
Daray Street	Lane County	Local Roadway (Lane County)
Sarah Lane	City of Coburg	Local Roadway
N. Emerald Street	City of Coburg	Local Roadway
E. McKenzie Street	City of Coburg	Local Roadway
E. Lincoln Way	City of Coburg	Local Roadway
E. Delaney Street	City of Coburg	Local Roadway
E. Maple Street	City of Coburg	Local Roadway
E. Thomas Street	City of Coburg	Local Roadway
Rustic Court	City of Coburg	Local Roadway
Shane Court	City of Coburg	Local Roadway

\*Jurisdictional transfers of local roads may occur resulting in changes to the jurisdictional information in this table. The jurisdictional transfer process is independent of this document and does not require an amendment to this document in order to occur.

In addition to the functional classification of the area roadways, the interchange itself has a role or function that it serves with the broader transportation system. The broad intended function of the Coburg/I-5 interchange is to safely and efficiently move traffic between I-5 and the local crossroad, accommodate planned future traffic demands in the interchange area, and preserve mobility along I-5.

More specifically, the Coburg/I-5 interchange is an important facility for the community of Coburg, and also serves the following functions:

- **Commercial Access:** The interchange directly serves the downtown of Coburg, and Coburg businesses, including businesses off Coburg Industrial Way and Pearl Street. Several businesses off Pearl Street in the interchange study area are oriented to highway

travelers, and much of the land is zoned Highway Commercial to serve the traveling public. It is not the primary function of the Coburg/I-5 interchange to serve additional or expanded commercial land uses (beyond the existing zoned potential) or regional commercial development.

- **Industrial Access:** The interchange provides access to industrial manufacturing and industrial retail sales businesses, as well as a route for industrial and business freight. As the industrial-zoned areas of Coburg continue to develop, the Coburg/I-5 interchange will continue to be a key economic development factor.
- **Freight Movement:** Freight vehicles use the Coburg/I-5 interchange to access freight generators located off Coburg Industrial Way (e.g., Truck and Travel, Monaco Coach and Marathon) as well as northwest of Coburg (e.g., timber industry facilities).
- **Commuting:** A significant number of regional residents utilize the interchange to access employment in Coburg. This number will continue to rise as employment increases in the interchange management area.
- **Local Access to the Region:** Many Coburg residents use the interchange to travel to other communities, such as Eugene, Springfield, or Salem, for employment, shopping, or other personal trips.

Interchange modifications and associated local improvements must be planned and implemented to accommodate the multi-functional nature of the interchange.

## 1.5 Goal and Objectives

The goal of this IAMP is to reflect collaborative work with ODOT, Lane County, and the City of Coburg and outline recommendations for transportation improvements and policy and implementation measures that will maximize the operation of the interchange and accommodate future growth (as planned for in the *Coburg Comprehensive Plan*) in the interchange management area.

Policy 3C of the 1999 OHP states, “it is the policy of the State of Oregon to plan for and manage grade-separated interchange areas to ensure safe and efficient operation between connecting roadways.” Consistent with this policy and consideration of project-specific local transportation issues, the objectives of the Coburg/I-5 IAMP are to:

- Protect long-term safety and operations of the interstate and local road network
- Build on the work in the *Refinement Plan* as adopted in the *Coburg TSP*
- Accommodate 2031 planned growth for the Coburg/I-5 interchange management area (described in Section 1.6) as outlined in the *Coburg Comprehensive Plan*
- Preserve public investments in the Coburg/I-5 interchange and adjacent transportation network
- Plan for future management of the interchange and adjacent land uses within the interchange management area (described in Section 1.6)

- Work with Coburg and Lane County to develop a plan for road network, right-of-way, and access within the interchange management area (described in Section 1.6)
- Provide recommendations for enhancement of the pedestrian and bicycle system
- Provide recommendations that allow for expanded use of transit and other transportation demand management (TDM) measures
- Provide for Oregon Transportation Commission (OTC) adoption of a plan so existing funds can be accessed for interchange reconstruction
- Ensure integration of land use and transportation planning
- Provide certainty for property and business owners and local governments

## 1.6 IAMP Interchange Management Area

The Coburg/I-5 interchange management area is centered on the Coburg/I-5 interchange, an urban interchange located in the eastern portion of the city of Coburg, Oregon, just north of Eugene along I-5. Figure 1-1 depicts the Coburg/I-5 interchange management area.

The interchange management area (Figure 1-1) differs from the IAMP study area, which was used for the traffic operational forecasting and analysis. The study area included all land within the City of Coburg, plus unincorporated adjacent areas, while the management area includes land closer to the interchange. The IAMP interchange management area encompasses land within ½ mile of the interchange, and is consistent with provisions in the Transportation Planning Rule (TPR).

Management area boundaries are based on recent TPR changes related to the establishment of interchange management areas (defined in OAR 660-012-0060) as well as property boundaries, traffic patterns, and existing natural resources (creeks, etc.). The management area helps focus the development and evaluation of IAMP alternatives, as well as to delineate an area where implementation will apply.

The Coburg/I-5 interchange management area is approximately 5 miles north of Eugene and 55 miles south of Salem. The management area includes a significant portion of the city of Coburg, and a portion of unincorporated Lane County. All road facilities in the Coburg/I-5 interchange management area fall under the jurisdiction of the City of Coburg, Lane County, or ODOT. I-5 is the only major highway facility located within the interchange management area.

Land within the Coburg/I-5 interchange management area is primarily flat, with some ponds located northwest and southeast of the interchange. Land to the west of I-5 is primarily located within Coburg city limits, and includes residential, commercial and industrial land uses, including facilities for motorcoach manufacturing and distribution. Land to the east of I-5 is relatively undeveloped. The area includes an RV sales lot and RV park, and farm land. Primary industries in the Coburg/I-5 interchange management area include services and manufacturing. Major employers of note are Monaco Coach and Marathon, located northwest of the Coburg/I-5 interchange.

## 1.7 Related Work Products

- As of April 2006, \$12,500,000 in federal earmark and local match funding was identified for interchange improvements at the Coburg/I-5 interchange in the *Regional Transportation Plan* (Project #1003).
- In October 2005, \$3,000,000 was programmed into the Metropolitan Transportation Improvement Program for Coburg/I-5 interchange improvements.
- ODOT's 1999 *Coburg/Interstate 5 Interchange Refinement Plan* was central to the preparation of this IAMP. The *Refinement Plan* outlines a Preferred Concept related to interchange configuration and access. This IAMP sought to re-examine the Preferred Concept, given changes since 1999 in planned employment and population growth in the Coburg area and in statewide highway policies related to interchanges. The *Refinement Plan* provides rationale for Coburg/I-5 interchange improvements. The *Refinement Plan* was adopted as part of the *Coburg TSP*. The transportation improvements included in the *Refinement Plan* were analyzed during the alternatives decision-making process for the IAMP:
  - Three-lane interchange bridge structure with pedestrian and bicycle facilities and improvement to profile grade and ramps
  - Signalization at I-5 ramps when warranted (*already completed at northbound ramps*)
  - Stuart Way realigned or vacated (*already completed – vacated*)
  - Realignment of Roberts Road to line up with Coburg Industrial Way at a signalized intersection
  - Access closure of the original Roberts Road at Pearl Street
  - New connection between realigned Roberts Road and original Roberts Road
  - Pearl Street improvements to five-lane urban standard road with sidewalks and bicycle lanes (*already completed*)
- Map 14 of the Coburg TSP depicts several transportation system improvements located in the Coburg/I-5 interchange management area, including projects listed in the *Refinement Plan*. The projects were factored into the operational analysis and alternatives decision-making process for this IAMP.
  - Three-lane interchange bridge structure with pedestrian and bicycle facilities and improvement to profile grade and ramps
  - Signalization at Interstate 5 ramps when warranted (*already completed at northbound ramps*)
  - Stuart Way realigned or vacated (*already completed – vacated*)
  - Realignment of Roberts Road to line up with Coburg Industrial Way at a signalized intersection

- Access closure of the original Roberts Road at Pearl Street
- New connection between realigned Roberts Road and original Roberts Road
- Enhanced local road network north of Pearl Street immediately west of the interchange (connecting to Pearl Street from Coburg Industrial Way)
- Map 16 of the Coburg TSP also includes alignments yet to be determined – a northern connector, located in northern Coburg near Coburg Industrial Way and a Southern Connector, located at the south end of Roberts Road. Neither of these alignments was specifically delineated on the map.
- An update to the Coburg TSP is listed in the approved *2006-2009 State Transportation Improvement Program (STIP)*. It is listed as Project #14297 for \$94,000 in local STIP-U funds.

## 1.8 Public Involvement

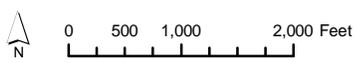
The purpose of the public involvement program for the Coburg/I-5 IAMP was to build a planning process that incorporated the needs and issues of residences and businesses in the Coburg/I-5 interchange area, including those who depend on and use the interstate. A key goal of the public involvement program was to elicit public discussion regarding access changes and potential phasing of treatments. The public involvement process for the Coburg/I-5 IAMP project is summarized in Appendix A of this document.



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-  IAMP Management Area Boundary<sup>1</sup>
-  Rivers & Streams<sup>2</sup>
-  Coburg City Limits<sup>2</sup>
-  Urban Growth Boundary<sup>2</sup>

2005 NAIP Aerial Photography<sup>2</sup>



Map produced by:  


**Figure 1-1 Coburg IAMP Management Area  
 Coburg/I-5 Interchange Area  
 Management Plan**

Sources: 1. CH2M Hill 2. LCOG

Map Document (G:\projects\coburg\IAMP\_09\Fig1\_CoburgAMP\_SA.mxd)  
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# Existing Conditions Inventory and Analysis

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## 2.1 Regulatory Framework

The Coburg/I-5 interchange management area encompasses land in the city of Coburg and Lane County. IAMP improvements are subject to applicable land use regulations for each jurisdiction, as well as state and federal regulations.

State, county, and local regulations pertaining to IAMP actions are addressed in the Plan and Policy Review, located in Appendix B. Findings of compliance with state and local plans, policies, and regulations are found in Appendix C.

## 2.2 Existing Land Use and Zoning

Existing land uses and zoning help to explain traffic patterns affecting the Coburg/I-5 interchange management area, as well as to identify potential transportation needs. Existing land uses/zoning can also help illuminate development potential that could affect interchange or mainline operations in the future. Significant existing patterns in the area include commute behavior relating to employees of the Monarch and Monaco factories and other employers to the west of I-5, as well as I-5 freight and other through-traffic using the travel-related services near the interchange. The relatively high amount of undeveloped land surrounding the interchange is also of significance to planning in the area. Vacant land located to the west of I-5 has the potential for development. Vacant land located to the northeast of I-5 would need to be included in Coburg's UGB and annexed into the City of Coburg before urban-level development could occur.

Figure 2-1 shows City of Coburg and Lane County Comprehensive Plan designations. City of Coburg land use designations in the interchange management area include Traditional Residential, Highway Commercial, Light Industrial, and Public Facility. Lane County land use designations include Agricultural, Residential, and Non-Resource.

Figure 2-2 shows City of Coburg and Lane County zoning districts. City of Coburg zoning districts within the interchange management area include Highway Commercial, Light Industrial, Traditional Residential, and Public Water Service. Lane County zoning designations within the interchange management area include Exclusive Farm Use, 40-acre minimum (E-40), Rural Residential, 2-acre minimum and 10-acre minimum (RR-2, RR-10), and Neighborhood Commercial (C2).

The interchange management area has been divided into northwest, southwest, northeast, and southeast quadrants for ease of description.

### 2.2.1 Northwest Quadrant

All of the land northwest of the interchange within the interchange management area is located within the Coburg city limits. The western-most portion of the northwest quadrant

is designated on the land use map as primarily Traditional Residential, and includes traditional grid street patterns and some of the older housing stock in the city. Heading eastward toward I-5, land uses rapidly become industrial. Accessed off Coburg Industrial Way, the Light Industrial designated land is used by Monaco Coach Corporation and other employers for the development of high-end and luxury motor coaches.

Immediately northwest of the interchange, the land is currently vacant. This vacant land is designated Traditional Residential and Highway Commercial (the land adjacent to I-5) by the City of Coburg, and has significant development potential. Some of the land along E. Pearl Street is developed, including a service station and a restaurant accessed from Daray Street.

The northwest quadrant of the interchange management area currently has the most influence on interchange and I-5/Pearl Street/Van Duyn Road traffic operations—Monaco Coach has a large number of employees working on shift schedules, which means that they often arrive at and leave from work at the same times. Many of the workers travel south on I-5 during the PM peak hour.



**Coburg/I-5 interchange, looking west**

## 2.2.2 Southwest Quadrant

Much of the land within the management area southwest of the interchange is located within Coburg city limits and the Coburg UGB. Southwest of the interchange, the westernmost area is residential land. Moving east, the land uses quickly become more intensive and are designated Highway Commercial and Light Industrial. This land is characterized by commercial and industrial developments, including an RV park (KampingWorld), RV factory outlets and a manufactured home outlet. Commercial uses along E. Pearl Street include service stations and uses related to the trucking industry and freeway travel (Truck-N-Travel, Shell), as well as some eateries. Several driveways access these commercial locations south of E. Pearl Street, and the area is also characterized by large parking areas for trucks and larger vehicles. There is some land designated Exclusive Farm Use located outside of city limits in this quadrant of land.

## 2.2.3 Northeast Quadrant

The land northeast of the interchange within the interchange management area is located outside the Coburg UGB, and within unincorporated Lane County. The land is largely undeveloped, and is primarily designated Exclusive Farm Use. The land immediately adjacent to I-5 on the east currently has a temporary permit for temporary RV parking, and is used to stage RVs for pickup.



**Coburg/I-5 interchange, looking east**

## 2.2.4 Southeast Quadrant

The land immediately southeast of the interchange within the interchange management area was recently annexed into the City of Coburg, and is designated by the City as Highway Commercial. The remainder of the land in the southeast interchange quadrant is located in unincorporated Lane County, and is designated Exclusive Farm Use and Rural Residential. Land uses in the area include a motel and an RV park (immediately southeast of the interchange) and a drainage facility, as well as some vacant land.

## 2.2.5 Zoning and Permitted Land Uses

Table 2-1 includes permitted land uses according to zoning district within the Coburg/I-5 IAMP management area. Appendix D includes a more detailed list of permitted uses.

TABLE 2-1  
Permitted Land Uses within Coburg/I-5 Interchange Management Area

Zoning District	Permitted/Conditional Uses <sup>1</sup>	Minimum Lot Size/Coverage
<b>City of Coburg Zoning Code—Ordinance No. A-199</b>		
Traditional Residential (TR)—Article VII, A	Single family, duplexes	7,500 to 10,000 square feet
	Churches, schools, parks	Maximum lot coverage: 30-35%
	Boarding, nursing, group homes	
Highway Commercial (C-2)—Article VII, D	Retail, auto-related uses	10,000 square feet if no public sewer
	Institutional, educational, office uses	No minimum if public sewer
	Commercial recreation, restaurants	Maximum lot coverage: 60%
For all permitted uses and structures the total ground floor space must not exceed 50,000 square feet of gross floor area per building		
Light Industrial (LI)—Article VII, E	Commercial service, office, retail	10,000 square feet if no public sewer
	Manufacturing, assembly, processing	No minimum if public sewer
	Warehousing	Maximum lot coverage: 60%
<b>Lane County Code, Chapter 10—Zoning (inside UGB)</b>		
Neighborhood Commercial <sup>2</sup> (C2) Section 10.160	Bakeries, banks, small retail stores, laundries, restaurants	Full coverage allowed (with setbacks)
<b>Lane County Code, Chapter 16—Zoning (outside UGB)<sup>3</sup></b>		
Exclusive Farm Use (E-40) Section 16.212	Farm uses, forest related uses	40-acre minimum lot size
	Limited single family residential	
Rural Residential (RR) Section 16.290	Single family, general farming, animal husbandry	Minimum lot size 1 to 10 acres
	Churches, schools, parks, golf courses	

<sup>1</sup> These are general categories of uses and are not meant to be a complete list.

<sup>2</sup> There is only one parcel zoned C2 in the interchange management area (parcel is approximately 1.45 acres).

<sup>3</sup> All lands outside the UGB are subject to the provisions in Chapter 16 of the Lane Code and state land use provisions in OAR 660, in particular 660-025 and 660-033. Only rural land uses are permitted outside the UGB.

## 2.2.6 Activity Centers

Activity centers within the Coburg/I-5 interchange management area include the interchange area itself, which generates traffic – including truck traffic – with its services for truckers and travelers. The Monaco Coach Corporation development is another critical activity/employment center.

Major activity centers near the Coburg/I-5 interchange include historic downtown Coburg, located approximately 1 mile west of I-5, which features antique stores and other retail shops and restaurants. Other activity centers include the city park (east of the downtown central business district) and the school located on North Coburg Road.

## 2.3 Growth Patterns and Demographics

Growth patterns and demographics in the Coburg area are important to understanding the future demands and needs for the transportation system in the area, including safety and operations related to the Coburg/I-5 interchange, I-5 mainline, and connecting local road network.

### 2.3.1 2000 Census

According to the U.S. 2000 Census, population in Coburg was 969, there were 367 total households, and there were 481 residents aged 16 years and over employed in the civilian labor force.

Average household size was 2.64 and average family size was 3.07. 80.4 percent of housing units were owner-occupied and 19.6 percent of housing units were renter-occupied. 86.7 percent of the population 25 years and older were high school graduates or higher, and 30.5 percent had bachelor's degree or higher.

The greatest percentages of employed civilian population 16 years and over were employed in management, professional and related occupations (29.5 percent) and sales and office occupations (28.7 percent). The percentage of families in poverty status in 1999 was 7.7 percent. Median household income was \$47,500, and per capita income was \$21,696.

Mean travel time to work was 19.9 minutes. With regard to commuting for workers 16 years and over, 79.7 percent drove to work alone, 10.1 percent carpooled, less than 1 percent are recorded using public transportation, 3.9 percent walked, 0.6 percent used other means, and 5.8 percent worked at home. 5.8 percent of occupied housing units had no vehicles available.

### 2.3.2 Coburg Population/Employment Forecasts

The Recommended Alternative for this IAMP is consistent with land use assumptions in the *Coburg Comprehensive Plan*, because all IAMPs must be consistent with local Comprehensive Plans. The Recommended Alternative is also consistent with the federally required Regional Transportation Plan (RTP) for Central Lane Metropolitan Planning Organization (CLMPO) and the 2004 *Coburg Urbanization Study*. The *Coburg Urbanization Study* is a document that was adopted by Coburg City Council, but never formally adopted into the Comprehensive Plan.

The Recommended Alternative for this IAMP recognizes that the City is likely to expand its UGB. As of this writing, because of wastewater system constraints (i.e., the lack of a wastewater system) the City has not been able to expand its UGB and land base to accommodate population and employment forecasts consistent with the 2004 *Coburg Urbanization Study* and the RTP.

The Recommended Alternative includes policy measures intended to protect the function and capacity of the interchange as the City moves toward expanding its UGB to provide for a greater level of growth, such as that identified in the RTP and the *Coburg Urbanization Study*. Table 2-2 shows differences in population and employment forecasts for the Comprehensive Plan, *Coburg Urbanization Study*, and RTP.

TABLE 2-2  
Comprehensive Plan, Coburg Urbanization Study and RTP Land Use Assumptions (Year 2025)

	Population	New Dwelling Units	Employment
Coburg Comprehensive Plan	1,819	322	4,672
Regional Transportation Plan	2,950	843	4,197
Coburg Urbanization Study	3,327	893	5,157

This IAMP is based on the lower Comprehensive Plan population and employment numbers, because this is required by the state. However, the IAMP process also acknowledge the existence of the regionally adopted RTP forecasts and the locally adopted *Urbanization Study* forecasts to ensure the IAMP does not become obsolete the moment the City of Coburg resolves its wastewater issues, expands its UGB, and amends its Comprehensive Plan.

Based on land use designations included the *Coburg Comprehensive Plan*, 896 total (574 existing and 322 new) dwelling units and 4,672 employees are forecast for 2025 for the purpose of this IAMP. Because the analysis year for this IAMP is 2031, the 2025 population and employment forecasts were used to generate 2025 traffic forecasts, which were in turn grown to 2031 traffic forecasts using annual average growth rates.

As demonstrated in Table 2-2, Coburg is expected to undergo a large growth increase over the next 20 years. The method used to develop the forecasts upon which the IAMP analysis is based is described in greater detail in Section 3.2.

## 2.4 Transportation Facilities and Traffic Operations

This section summarizes the existing transportation conditions within the interchange management area, provides assumptions and methods used for the traffic operational analyses, and catalogues existing transportation system facilities and services. To the extent possible, physical as well as operational characteristics of the roads, intersections and transportation services are described.

### 2.4.1 Road Facilities

A summary of road facilities and characteristics is important to understanding the transportation system in relation to the Coburg/I-5 interchange management area in order

to set a baseline of information for IAMP alternatives and recommendation development. This section describes the public roads within the interchange management area.

### Road Descriptions

Interstate 5 is the primary road serving the Coburg/I-5 interchange area. East Pearl Street/Van Duyn Road is the primary east-west arterial connection serving the interchange area. Other public roads within the interchange management area include:

- West of I-5
  - Daray Street
  - Coburg Industrial Way
  - Roberts Road
  - Sarah Lane
  - N. Miller Street
  - N. and S. Coleman Street
  - N. Emerald Street
  - E. Mill Street
  - E. McKenzie Street
  - E. Lincoln Way
  - E. Delaney Street
  - E. Dixon Street
  - E. Maple Street
  - E. Thomas Street
  - Rustic Court
  - Shane Court
- East of I-5
  - Hereford Road (first public road located east of I-5)

There are also private driveways located both east and west of the interchange within the management area. The City of Coburg recently vacated Stuart Way and the easternmost portion of Delaney Street, located west of the interchange, and that right-of-way is now considered part of the Truck-N-Travel property (with access and utility easement conditions).

The following descriptions briefly characterize all the roads within the interchange management area.

**Interstate 5.** I-5 is a limited access Interstate Highway, classified as part of the National Highway System (NHS). I-5 is also a designated freight route and is a federal North American Free Trade Agreement (NAFTA) route. I-5 is the primary north-south interstate road facility for the Pacific Coast states (Washington, Oregon, and California).

I-5 within the study area runs along the eastern edge of the city of Coburg, and also borders unincorporated Lane County. Within the interchange management area, I-5 is a four-lane facility (two lanes in each direction, separated by a grassy median). According to ODOT's

2007 *Transportation Volume Tables*, average daily traffic just south of the Coburg/I-5 interchange (milepost 198.85) is approximately 45,100 vehicles.

The Coburg/I-5 interchange is a classic diamond interchange, located at milepost 199.15. According to ODOT's 2007 *Interchange Ramp Volume Diagrams*, at the Coburg/I-5 (Van Duyn Road) interchange, the northbound average daily volume on I-5 immediately south of the interchange is 22,250; while immediately north of the interchange northbound average daily volume is 18,930. According to the data, southbound average daily volume is 18,930 immediately north of the interchange and 22,890 immediately south of the interchange. Average 2007 daily volume on the northbound off-ramp is 5,090 while the northbound on-ramp is 1,770. Average 2007 daily volume on the southbound off-ramp is 1,880, while on the southbound on-ramp, it is 5,480. The differences between the off-ramps and on-ramps for each direction likely point to the influence of major employment areas located northwest of the interchange on interchange volumes and operations.



**Coburg/I-5 interchange, southbound on-ramp**

**E. Pearl Street.** E. Pearl Street is a two-lane County Minor Arterial that travels east-west and turns into Van Duyn Road at the east of the Coburg/I-5 interchange. The intersection of E. Pearl and Coburg Industrial Way is signalized. E. Pearl Street provides direct access to commercial and industrial businesses, and leads west to the historic central business district in Coburg. Within the interchange management area, E. Pearl Street is classified locally as a truck route.



**Looking east toward the interchange on E. Pearl**

**Van Duyn Road.** Van Duyn Road is a two-lane local County road that travels east-west and turns into E. Pearl Street at the Coburg/I-5 interchange. There is a traffic signal at the intersection of Van Duyn Road and the northbound I-5 ramp terminal. Van Duyn Road accesses property to the east of the interchange. Within the interchange management area, Van Duyn Road is classified by Coburg as a truck route and by Lane County as a local road.

**Daray Street.** Daray Street is a county two-lane local road that accesses some businesses immediately north of E. Pearl Street and then dead-ends. Daray Street does not meet ODOT spacing standards for interchanges; it is less than 1,320 feet from the I-5 ramp intersection with E. Pearl Street.

**Coburg Industrial Way.** Coburg Industrial Way is a two-lane County Minor Collector (between E. Pearl and city limits) and City collector (north of the County road section) that travels north-south and provides access to the Monaco Coach and industrial property northwest of the interchange. Coburg Industrial Way does not meet ODOT spacing

standards for interchanges; it is less than 1,320 feet from the I-5 southbound ramp intersection with E. Pearl Street.

**Roberts Road.** Roberts Road is a two-lane City collector that travels north-south and provides access to Shell, Truck-N-Travel and other commercial and light industrial uses southwest of the interchange. Roberts Road does not meet ODOT spacing standards for interchanges; it is less than 1,320 feet from the I-5 ramp intersection with E. Pearl Street.



*Industrial Way, looking north toward Monaco Coach facility*

**E. Mill Street.** E. Mill Street is a two-lane City road that travels east-west and is classified as a City collector between Diamond Street and Miller Street. E. Mill Street provides access to residential properties west of the interchange as well as to the city park. E. Mill Street is narrow in areas.

**E. Dixon Street.** E. Dixon Street is a two-lane City road that travels east-west and is classified as a collector between Willamette Street and Coleman Street and as a local road everywhere else. E. Dixon Street primarily provides access to residential properties west of the interchange.



*Looking east from Coleman Street*

**N. and S. Coleman Street.** Coleman Street is a two-lane City road that travels north-south and is classified as a City collector between Mill Street and Pearl Street, but a local road everywhere else. Coleman Street provides access to residential properties northwest of the interchange, and provides a major north-south link through town. It is characterized by a series of four-way stops at intersections.

**Sarah Lane.** Sarah Lane is a two-lane City local road that travels east-west and provides access to residential properties northwest of the interchange.

**N. Miller Street.** N. Miller Street is a two-lane City local road that travels north-south and provides access to residential properties west of the interchange.

**N. Emerald Street.** N. Emerald Street is a two-lane City local road that travels north-south and provides access to residential properties northwest of the interchange.

**E. McKenzie Street.** E. McKenzie Street is a two-lane City local road that travels east-west and provides access to residential properties west of the interchange and to the city park.

**E. Lincoln Way.** E. Lincoln Way is a two-lane City local road that travels east-west and provides access to residential properties west of the interchange.

**E. Delaney Street.** E. Delaney Street is a two- and one-lane local City road that travels east-west and provides access to residential and commercial land west of the interchange. Immediately west of Stuart Way, E. Delaney Street has been vacated and is poorly maintained.

**E. Maple Street.** E. Maple Street is a two-lane City local road that travels east-west and provides access to residential properties west of the interchange.

**E. Thomas Street.** E. Thomas Street is a two-lane City local road that travels east-west and provides access to residential properties northwest of the interchange.

**Rustic Court.** Rustic Court is a two-lane City local road that travels north-south and provides access to residential properties northwest of the interchange.

**Shane Court.** Shane Court is a two-lane local City road that travels north-south and provides access to residential properties northwest of the interchange.

**Stuart Way.** Stuart Way is a two-lane private road that was recently vacated by the City of Coburg. It provides access to the Truck-N-Travel site as well as the Eugene Kamping RV Park and Featherland. Stuart Way does not meet ODOT spacing standards for interchanges; it is less than 1,320 feet from the I-5 ramp intersection with E. Pearl Street.

### Jurisdiction and Functional Classification

Most of the roads within the Coburg/I-5 interchange management area fall under the jurisdiction of Coburg, though other roads are owned by Lane County or ODOT, as shown in Table 2-3. Most of the roads within the interchange management area are classified by the City of Coburg as local roads, though a few are classified as arterials (Willamette Street and E. Pearl Street) or collectors. Descriptions of relevant City of Coburg functional classifications for the management area include the following:

- **Interstate Highways** – Interstate Highways are the highest classification of road, and serve larger volumes of interstate and regional traffic at higher speeds with limited access. Interstate Highways favor mobility over access.
- **County Arterials** – County Arterials also generally favor mobility over access, and provide important regional and local connections.
- **County/City Collectors** – County/City Collectors are intermediate roads that typically serve as the direct link between local streets and the arterial street system. Mobility and access functions are important for Collectors.
- **Local Roadways** – The remainder of roads are classified as local roads. Access is the most important function for local roads.

Figure 2-3 depicts both City and County functional classification, based on roadway ownership. Information is relevant for segments within the management area only.

### Number of Lanes, Road Width, Marked Shoulders, Speed Limits, Parking

Physical road characteristics help to define potential road issues or problem areas. Table 2-4 lists number of lanes, road width, marked shoulder width (if any), speed limits and presence of on-street parking for roads within the interchange management area. Many of the collectors within the interchange management area are relatively narrow for the expected function of the road.

**TABLE 2-3**  
Coburg/I-5 IAMP Ownership and City of Coburg/Lane County Functional Classification

<b>Road</b>	<b>Jurisdiction (Ownership)</b>	<b>Functional Classification</b>
Interstate 5	ODOT	Interstate Highway (NHS)
Van Duyn Road	Lane County	Local Roadway
Pearl Street	Lane County	County Arterial (Coburg) Minor Arterial (Lane County)
Coburg Industrial Way	Lane County and City of Coburg	Minor Collector (Lane County) City Collector (Coburg)
Roberts Road	City of Coburg	City Collector
N. and S. Coleman Street	City of Coburg	City Collector and Local Roadway
E. Mill Street	City of Coburg	City Collector and Local Roadway
E. Dixon Street	City of Coburg	City Collector and Local Roadway
N. Miller Street	City of Coburg	Local Roadway
Stuart Way	Private Road	Vacated
Daray Street	City of Coburg and Lane County	Local Roadway
Sarah Lane	City of Coburg	Local Roadway
N. Emerald Street	City of Coburg	Local Roadway
E. McKenzie Street	City of Coburg	Local Roadway
E. Lincoln Way	City of Coburg	Local Roadway
E. Delaney Street	City of Coburg	Local Roadway
E. Maple Street	City of Coburg	Local Roadway
E. Thomas Street	City of Coburg	Local Roadway
Rustic Court	City of Coburg	Local Roadway
Shane Court	City of Coburg	Local Roadway

TABLE 2-4  
Coburg/I-5 IAMP Lanes, Road Width, Marked Shoulders, Speed Limit, Parking

Road	# Lanes	Road Width	Marked Shoulders (feet)	Speed (MPH)	Signed Parking
Interstate 5	4	80'	4+	65	N/A
Van Duyn Road	2	24'	4+	35	N/A
E. Pearl Street	2	26'	None	35	N/A
Coburg Industrial Way	2	42'	None	Basic Rule	No Parking
Roberts Road	2	22'	None	40	1 hour on the east; no parking on west
N. and S. Coleman Street	1	17'	Curbless	25	N/A
E. Mill Street	2	16'	Curbless	25	N/A
E. Dixon Street	2	20'	Curbless	25	N/A
N. Miller Street	2	20'	Curbless	25	N/A
Daray Street	2	36'	None	25	N/A
Sarah Lane	2	24'	None	25	No Parking
N. Emerald Street	2	20'	Curbless	25	N/A
E. McKenzie Street	2	20'	Curbless	25	N/A
E. Lincoln Way	2	20'	Curbless	25	N/A
E. Delaney Street	2	20'	Curbless	25	N/A
E. Maple Street	1	16'	Curbless	25	N/A
E. Thomas Street	1	17'	Curbless	25	N/A
Rustic Court	2	24'	None	25	N/A
Shane Court	2	24'	None	25	N/A

Note: In cases where street segments vary in terms of physical characteristics, the primary characteristic is listed in this summary table (e.g., if a road segment is primarily two lanes and is one lane for a short segment, it will be listed in the table as two lanes).

## Road Condition

Road pavement condition within the interchange management area affects the coordination of projects and identifies potential improvement needs. For example, often time improvements can be coordinated with pavement overlay programs to maintain efficient and streamlined funding by completing both at once. Table 2-5 lists pavement condition ratings within the interchange management area. Figure 2-4 shows pavement condition ratings for the interchange management area.

Road condition ratings are based on ODOT standards. Conditions are not identified below the road segment level. No pavement condition ratings are available for interstate ramps. The following codes are used for roads in the interchange management area:

- **Poor** – Paved road. Areas of instability, marked evidence of structural deficiency, large crack patterns (alligatoring), heavy and numerous patches, and/or deformation very noticeable. Riding quality ranges from acceptable to poor.
- **Fair** – Paved road. Generally stable, with minor areas of structural weakness evident. Cracking easy to detect; patched but not excessively. Deformation is more pronounced and easily noticed. Good riding quality.
- **Good** – Paved road. Stable, may have minor cracking, generally hairline and hard to detect. Minor patching and some minor deformation may be evident. Very good riding surface.

TABLE 2-5  
2005 Coburg/I-5 IAMP Pavement Condition

Road	Pavement Condition
Interstate 5	Good (Southbound); Very Good (Northbound)
Van Duyn Road	Fair
E. Pearl Street	Good
Coburg Industrial Way	Good
Roberts Road	Good
N. and S. Coleman Street	Good
E. Mill Street	Good
E. Dixon Street	Good
N. Miller Street	Good
Daray Street	Fair
Sarah Lane	Good
N. Emerald Street	Good
E. McKenzie Street	Good
E. Lincoln Way	Fair
E. Delaney Street	Good
E. Maple Street	Good
E. Thomas Street	Good
Rustic Court	Good
Shane Court	Good

Note: In cases where street segments vary in terms of pavement condition, the primary condition is listed in this summary table (e.g., if a road segment is primarily good, and is fair for a short segment, it will be listed in the table as good).

### Signed Truck Routes

Truck route locations are important for understanding the flow of freight movement through an area. I-5 is a significant freight route, and carries interstate and international

freight. Other signed designated truck routes in the interchange study area include E. Pearl Street and Van Duyn Road. West of the interchange management area, Willamette Street is a freight route that connects with freight generators (e.g., the mill) to the northwest of Coburg.

### Traffic Control

Traffic control is critical for traffic flow and safety in many locations. Within the interchange management area, there are two signalized intersections:

- Northbound I-5 Ramps/Van Duyn Road; and
- E. Pearl Street/Coburg Industrial Way.

There are several stop-controlled intersections, including the following:

- E. Delaney Street/N. Miller Street (two-way stop control)
- Coleman Street/E. Maple Street (two-way stop control)
- Coleman Street/E. Dixon Street (four-way stop control)
- Coleman Street/E. Delaney Street (four-way stop control)
- Coleman Street/E. Lincoln Way (four-way stop control)
- Coleman Street/E. McKenzie Street (four-way stop control)
- Coleman Street/E. Mill Street (four-way stop control)
- N. Miller Street/E. Mill Street (three-way stop control)
- All approaches to arterials are stop controlled

## 2.4.2 Interchange Condition and Geometric Deficiencies

The Coburg/I-5 interchange bridge was originally built in 1960 and was raised in 1998. The bridge was rated with a Sufficiency Rating of 77.1 in 2008, which is considered Not Deficient (not considered Structurally Deficient or Functionally Obsolete). The bridge is eligible for federal funds for rehabilitation, but not for replacement.<sup>8</sup> The bridge is 239 feet in length, and the bridge type is reinforced concrete deck girder. Horizontal clearance is 40 feet 6 inches and vertical clearance is 16 feet 2 inches.

Primary deficiencies noted with regard to the interchange include the following:

- **Sight distance.** Sight distances are substandard; the view that motorists have from the ramp terminal of oncoming vehicles is not comprehensive. Guardrail locations restrict motorist line of sight.
- **Grades/Deceleration Length.** E. Pearl Street/Van Duyn Road approaches I-5 on the west side at 5.5 percent and Van Duyn Road approaches I-5 from the east at 5.3 percent, which is steep for trucks. The deceleration length is substandard.
- **Bridge width.** The bridge structure is narrow, and does not have room to accommodate bicyclists, pedestrians, or vehicular emergencies. The width is substandard.
- **Vertical clearance.** The bridge structure is less than the 17.5-foot ODOT standard.

<sup>8</sup> A sufficiency rating of  $\leq 80$  percent is eligible for Federal Rehabilitation funds, and a sufficiency rating of  $\leq 50$  percent is eligible for Federal Replacement funds.

### 2.4.3 Access

Access spacing and the location of access points is critical to this IAMP planning process. The location of local streets and County roads near the interchange is a concern for the existing and future safety and operation of the Coburg/I-5 interchange. Public and private access locations along E. Pearl Street in the interchange study area are shown on Figure 2-5. Both ODOT and Lane County maintain access spacing recommendations or standards.

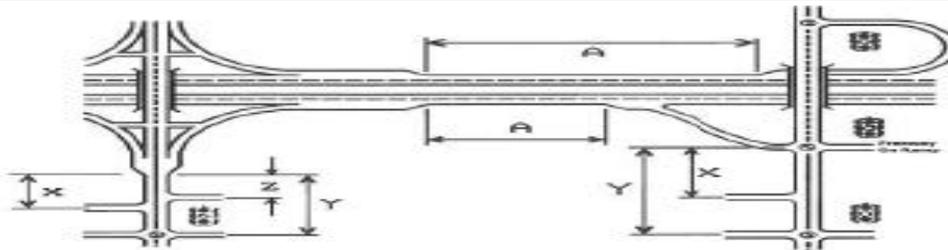
The Coburg/I-5 interchange is considered an urban interchange. There are no other interchanges along I-5 within these spacing limits; it is approximately 10 miles north to the Diamond Hill interchange, and approximately 3.5 miles south to the Beltline interchange.

The larger issue for the Coburg/I-5 interchange area is the spacing along the crossroad, Van Duyn Road/E. Pearl Street. According to the Oregon Highway Plan (OHP) Policy 3C: Interchange Access Management Areas, "When possible, access control shall be purchased on crossroads for a minimum distance of 1,320 feet (400 meters) from a ramp intersection or the end of a free flow ramp terminal merge lane taper."

ODOT standards are outlined in the OAR (OAR 734-051). The applicable standards are summarized in Table 2-6. The A, X, Y, and Z values are illustrated in Table 2-6.

TABLE 2-6  
Minimum Spacing Standards Applicable to Freeway Interchanges

Crossroad	Spacing Dimension			
	A	X	Y	Z
Two-lane	1 mile	1,320 feet	1,320 feet	990 feet
Multi-lane	1 mile	1,320 feet	1,320 feet	1,320 feet



- A = The distance between the start and end of tapers of adjacent interchanges.
- X = The distance to the first approach on the right; right in/right out only.
- Y = The distance to the first intersections where left-turns are allowed.
- Z = The distance between the last right in/right out approach road and the start of the taper for the entrance ramp.

Source: Tables 5 and 6 in OAR 734-051-0125.

Lane County standards, included in the *Lane County Transportation System Plan* (June 2004), reference ODOT standards for state facilities, and also reference Lane Code sections 15.130-15.139. Lane County classifies E. Pearl Street as an Urban Minor Arterial, 30 and 35 mph, and therefore, per Lane County Code Section 15.138 – Table 2, County spacing standards are 275 feet for roads and driveways (measured centerline to centerline) along E. Pearl Street.

Lane County classifies Van Duyn Road as an Urban Local Road within the UGB, and as a Rural Local Road outside the UGB. According to Lane County Code Section 15.138(2),

within a UGB the spacing standard for County Local Roads is 20 feet for use of property for a single family or manufactured dwelling, duplex, or triplex, and 100 feet for other uses. According to Lane County Code Section 15.138(3), outside the UGB the spacing standard for County Local Roads is 100 feet.

According to Lane County Code Section 15.137(6)(b), minimum offsets for roads along County roads designed for +25 mph speeds should be 150 feet. The County Code also recommends joint access where possible.

Lane County has a facility permits process to manage access to County Roads through the review of land divisions and other proposed development.

The following public roads do not meet the OHP's recommended distance from an interchange:

- Daray Street
- Coburg Industrial Way
- Roberts Road

In addition, Stuart Way (vacated road), driveways at the Texaco station, the entrance to Hillside Café and the RV park access on the east side of the interchange do not meet the OHP recommended distance of 1,320 feet from the interchange.

The intersections of Daray Street, Roberts Road, and Coburg Industrial Way are not aligned with each other, and in general do not meet County spacing or road offset standards.

#### 2.4.4 Crash Analysis

The crash analysis includes a summary of safety conditions along I-5 within the city of Coburg, and study area intersections within the Coburg/I-5 interchange management area. The ODOT Crash Analysis Unit provided crash history statistics<sup>9</sup> for the years 2003-2007. These data were analyzed to identify crash patterns that could be a result of existing geometric or operational deficiencies.

#### Interstate 5

ODOT has developed a Safety Priority Index System (SPIS), generated annually and based on the most recently available 3 years of crash data, to identify hazardous locations along state highways. The highway locations within the highest 10 percent SPIS score are evaluated for potential safety improvements. No locations along I-5 near the interchange management area (MP 198.00 to MP 200.50) were included in the most recent highest 10 percent SPIS score.

For the 5-year period, a total of 73 crashes were reported along I-5 within the interchange management area, including 13 injury crashes, 59 property damage crashes, and one fatal crash (with three fatalities). Table 2-7 provides an overview of all traffic crashes over the 5-year period.

<sup>9</sup> Legally reportable motor vehicle traffic crashes are those that involve death, bodily injury, or damage to personal property in excess of \$1000.

TABLE 2-7

Historical Crash Data on I-5 within the Coburg/I-5 Interchange Management Area (MP 198.00 to MP 200.50)

Year	Severity of Crash			Total Crashes	Type of Crash					
	Injury	Property Damage	Fatal		Angle	Rear-End	Fixed Object	Sideswipe-Overtaking	Turning	Other
2003	3	17	1	21	0	7	9	3	0	2
2004	5	25	0	30	0	10	12	8	0	0
2005	2	13	0	15	0	4	6	4	0	1
2006	0	2	0	2	0	0	1	0	1	0
2007	3	2	0	5	0	2	1	0	2	0
<b>Total</b>	<b>13</b>	<b>59</b>	<b>1</b>	<b>73</b>	<b>0</b>	<b>23</b>	<b>29</b>	<b>15</b>	<b>3</b>	<b>3</b>

The rate of traffic incidents occurring along I-5 ranged between 2 and 30 crashes per year. Although there were thirty crashes in 2004, there are no trends in the data to explain the high number of crashes. The most common type of crash was fixed object crashes, which comprised roughly 39 percent (29 crashes) of all crashes over the 5-year period. This was followed by rear-end crashes, which comprised roughly 31 percent (23 crashes) of all crashes over the 5-year period. In 2003, seven of the 21 crashes occurred on the same day and were during icy conditions. The fatal crash (three fatalities) occurred in July 2003 at dawn during clear and dry conditions at MP 199.0.

Road conditions and time of day are two elements often analyzed with crash statistics. The majority (57 percent, 42 crashes) of crashes occurred on dry surface. Most of the crashes also occurred during the day – 69 percent, or 51 crashes total. Table 2-8 summarizes these data. Crash incidents were comparatively higher during the work week than on weekends, and the PM peak period recorded the most number of crashes (10 crashes).

TABLE 2-8

Surface and Light Condition Summary

Surface Conditions	Crashes
Dry	42
Wet	20
Icy	11
<b>Total</b>	<b>73</b>
Light Conditions	Crashes
Day	51
Dark (Road Lighted)	14
Dawn	6
Dusk	2
<b>Total</b>	<b>73</b>

## 2.4.5 Intersection-Level Analysis

In addition to the I-5 corridor, interchange management area study intersections, including I-5 ramp termini, have been analyzed with regard to crashes from 2003-2007. Table 2-9 provides an overview of the crashes recorded by study intersection location. The most common type of crashes at the study intersections were turning, followed by rear-end crashes. Most of the crashes involved property damage only with no injury. No head-on or parking collisions were recorded. No collisions involved pedestrians or bicyclists. Twelve of the 16 intersection crashes took place during the day. Six of the intersection crashes occurred on wet pavement.

Intersection crash rates are typically reported in crashes per million entering vehicles (MEV). Most crash rates are substantially lower than 1.00, which indicates that crashes are not a significant concern at all five study intersections. The Pearl Street/Coburg Industrial Way intersection experienced the greatest number of crashes, warranting further review of geometric and operational issues.

TABLE 2-9  
Intersection Crash Data (2003-2007) Coburg/I-5 IAMP

Study Intersection	Severity of Crash		Total Crashes	Crash Rate (Crashes/MEV)	Type of Crash		
	Injury	Property Damage Only			Sideswipe-Overtaking	Rear-End	Turning
Pearl Street/Coburg Industrial Way	3	6	9	0.34	2	2	5
Pearl Street/Coleman Road	0	1	1	0.08	0	1	0
Pearl Street/Roberts Road	0	3	3	0.12	0	1	2
Van Duyn Road/I-5 Northbound Ramps	1	0	1	0.07	0	1	0
Pearl Street/I-5 Southbound Ramps	1	1	2	0.08	0	1	1
<b>TOTALS</b>	<b>5</b>	<b>11</b>	<b>16</b>	<b>-</b>	<b>2</b>	<b>6</b>	<b>8</b>

Note: MEV = million entering vehicles.

To reduce speeds in Coburg, traffic calming measures may be beneficial. Research has shown that narrower lanes, reduced overall road width, street trees, and speed humps along with other strategies have been successfully used to reduce travel speeds. These measures may in turn reduce the number of crashes in Coburg. Also, the incidence of crashes involving drivers not yielding indicates that some locations may benefit from better stop controls or improved sight distances.

## 2.4.6 Existing Operational Analysis

Existing operational analysis was conducted for intersections within the Coburg/I-5 IAMP interchange management area to identify operational issues. Figure 2-6 shows the turning movement volumes for study intersections within the interchange management area.

## Traffic Operations

Manual turning movement counts were collected for five intersections within the Coburg UGB on typical weekdays in November 2002, May 2004, January 2005, and February 2007: Pearl Street/Coburg Industrial Way, Van Duyn Road/I-5 Northbound Ramps, Pearl Street/I-5 Southbound Ramps, Pearl Street/Roberts Road, and Pearl Street/Coleman Street.

The counts completed during November 2002, May 2004, and February 2007 were 14-hour counts and the count completed during January 2005 included 3 hours in the morning and 3 hours in the evening. In February 2007, new 14-hour counts were conducted for the Van Duyn Road/I-5 Northbound Ramps and Pearl Street/I-5 Southbound Ramps intersections. This new set of counts replaced the previous counts for these two intersections. All counts included the peak period, 3:00 PM to 4:00 PM. These counts were collected to evaluate the existing road and intersection operations near and at the Coburg/I-5 interchange.

Appendixes E and F provide summaries of the methodologies and the raw traffic data used for this analysis, respectively.

## Average Daily Traffic Volumes and Heavy Vehicle Percentages

The average daily traffic (ADT) for facilities within Coburg varies between 7,000 and 14,000 vehicles per day. On E. Pearl Street west of Coburg Industrial Way, there are approximately 7,000 vehicles per day. East of Coburg Industrial Way on E. Pearl Street, the ADT increases to approximately 14,000 vehicles per day.

The percent of heavy vehicles for facilities within Coburg ranges from 5 percent to 30 percent. On E. Pearl Street west of Coburg Industrial Way the percent of heavy vehicles is between 5 percent and 15 percent. East of Coburg Industrial Way on Pearl Street, the percent of heavy vehicles increases from 15 percent to 30 percent. There is also a high percent heavy vehicle rate of 25 percent on the north approach of E. Pearl Street and Roberts Road.



***E. Pearl Street/Coburg Industrial Way Intersection***

## Study Intersections and Raw Traffic Counts

Traffic data were collected for signalized and unsignalized study intersections. Since the counts were taken in various years (2002, 2004, 2005, 2007), a growth factor was applied to the 2002 and 2004 counts to come up to the existing conditions year of 2005 for intersections not at I-5 ramps. 2007 counts were used for the I-5 ramp intersections. Appendix E provides an overview of the traffic analysis methodology and explains how the growth rate was calculated. Appendix F contains raw traffic volumes for each intersection that was counted.

- Signalized
  - Pearl Street and Coburg Industrial Way
  - Van Duyn Road and I-5 Northbound Ramps

- Unsignalized
  - Pearl Street and Coleman Street
  - Pearl Street and Roberts Road
  - Van Duyn Road and I-5 Southbound Ramps

### Analysis of the Automated Traffic Recorder Sites

ODOT traffic analysis procedures require the 30th highest hour traffic volumes be used to calculate volume to capacity (V/C)<sup>10</sup> ratios for intersections and street segments. The 30th highest hour represents the highest volume of traffic that would be expected to occur on the road, ignoring extraordinary circumstances—literally the 30th highest recorded traffic volumes. The 30th highest hour examined was a PM hour. Data from a representative automated traffic recorder (ATR) site was used to determine seasonal factors and to calculate 30th highest hour traffic volumes from traffic counts collected in November 2002, May 2004, January 2005, and February 2007. Methodologies used in this analysis are summarized in Appendix E.

### Analysis Method

Operational analysis of existing conditions for the five study intersections, using 30th highest hour traffic volumes, was performed using Synchro analysis software. Appendix G provides the complete report output for each intersection.

### State Highway Mobility Standards

State Highway Mobility Standards were developed for the OHP as a method to gauge reasonable and consistent standards for traffic flow along state highways. These mobility standards consider the classification (e.g., freeway, district) and location (rural, urban) of each state highway. Mobility standards are based on V/C ratios.

Two of the study intersections are governed by OHP standards with regard to existing operations.<sup>11</sup> These are the intersections at the I-5 northbound and southbound ramps. The two study intersections under ODOT's jurisdiction are within the UGB and inside the boundaries of a Metropolitan Planning Organization (MPO). These intersections are not within a Special Transportation Area (STA) and the intersections operate at a speed limit of less than 45 mph. The I-5 ramps therefore have a standard V/C ratio of 0.80 under the OHP. Table 2-10 lists the intersections within ODOT's jurisdiction.

The future no-build analysis will maintain the same OHP standards as the existing conditions analysis. The future build analysis will use the 20-year design standard as designated in the 2003 Highway Design Manual (HDM). The build analysis standard V/C ratio will be 0.75 for the ODOT governed study intersections because they are inside the urban growth boundary and in an MPO.

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<sup>10</sup> V/C ratios are defined as the number of vehicles passing through a road segment during a given period of time, divided by the capacity of that road segment

<sup>11</sup> OHP standards are used to evaluate operations for existing or future no-build conditions. HDM standards are used to evaluate any future build scenario options on state facilities.

### Lane County Mobility Standards

Lane County standards were used to analyze the remaining three study intersections in the interchange management area because they are located along a County road (E. Pearl Street). The *Lane County TSP* (2004) and *Lane Code* outline the performance standards. The three study intersections are located inside the UGB and within the MPO area. The minimum standard V/C ratio is 0.85 and the minimum acceptable level of service (LOS) is LOS D. For two-way stop controlled intersections, the approaches that are required to stop have a standard V/C ratio of 0.95 and LOS D. Table 2-10 lists the study intersections within the County’s jurisdiction.

The future no-build and future build analyses will maintain the same V/C ratio standard for the study intersections within the County’s jurisdiction.

TABLE 2-10  
Intersection Operational Analysis—Existing (2005) 30th Highest Hour

Study Intersection	Road Jurisdiction	LOS and V/C Ratio Standard		Observed Maximum LOS and V/C Ratio	
<b>Signalized</b>					
Pearl Street and Coburg Industrial Way	Lane County	(D) 0.85		(E) 0.61	
Van Duyn Road and I-5 Northbound Ramps	ODOT	0.80		0.40	
<b>Unsignalized</b>					
Pearl Street and I-5 Southbound Ramps	ODOT	0.80		0.66	
		<b>Major</b>	<b>Minor</b>	<b>Major</b>	<b>Minor</b>
Pearl Street and Coleman Street	Lane County	(D) 0.85	(D) 0.95	(A) 0.01	(C) 0.10
Pearl Street and Roberts Road	Lane County	(D) 0.85	(D) 0.95	(A) 0.14	<b>(F) 1.01</b>

Source: Synchro HCM Unsignalized and Signalized Reports

Notes: V/C standards for existing conditions on ODOT facilities are evaluated per the OHP.

For unsignalized intersections, the V/C ratio is presented for the worst movement for each street.

Numbers in **BOLD** indicate V/C ratios and levels of service not meeting OHP mobility standards.

For the intersections within ODOT’s jurisdiction, no LOS will be reported.

LOS = level of service

### Operational Analysis of Existing Conditions (30th Highest Hour)

Table 2-9 presents the mobility standards found in the OHP as well as the Lane County TSP and Lane Code. The table also presents the observed intersection V/C ratios for all of the study intersections and observed LOS for the intersections under City jurisdiction. These observations were made under the existing (2005) 30th highest hour traffic volumes. For signalized intersections, the overall intersection results are reported. For unsignalized intersections, the movement with the worst operating performance on both the major and minor approaches is reported.

Intersection V/C ratios greater than the mobility standards indicate areas of congestion and longer-than-acceptable vehicle delay. Intersection V/C ratios lower than the mobility standards indicate intersections operating at acceptable levels of mobility. As shown in Table 2-10, all of the study intersections except one (Pearl Street and Roberts Road) currently operate better than the OHP or County V/C thresholds.

Most of the intersections have V/C ratios well below the standard with exceptions at Pearl Street and Roberts Road and Van Duyn Road and I-5 Southbound Ramps. At Pearl Street and Roberts Road, the minor approaches are failing. The primary street volumes at this intersection are high due to the traffic traveling between I-5 and Coburg Industrial Way. The side street volumes are not large on Roberts Road, but since the intersection is a two-way stop, the vehicles have a difficult time turning onto, or getting across Pearl Street, thus making those movements fail.

#### **Turn-Lane Queuing Analysis of Existing Conditions (30th Highest Hour)**

The V/C ratio provides only one measure-of-effectiveness for intersection operation. Vehicle queuing in the turn-lanes shows where there is deficient vehicle storage at intersections. The 95th percentile queue length exceeds available storage capacity at the southbound left turn lane at E. Pearl Street and Coburg Industrial Way. However, this intersection meets Lane County mobility standards. All of the queues are shown in Table 2-11; assumptions used for the queue analysis are provided in Appendix E.

Queue lengths can impact overall intersection corridor operations by delaying and restricting upstream vehicle movements. This is true for both signalized and unsignalized intersections. The southbound left turn at E. Pearl Street and Coburg Industrial Way shares the same phase as the southbound through and right. This is beneficial, because it means that the long queues will not result in hindering through traffic from proceeding during the green signal. The long queue at Pearl Street and Coburg Industrial Way could, however, be an indication that vehicles are waiting at the signal for more than one cycle during peak periods.

TABLE 2-11  
2005 30th Highest Hour Queue Analysis

Intersection	Approach	Lane Group	Existing Storage (feet)	Queue Length (feet)
Pearl Street and Coburg Industrial Way	Eastbound	Left	200	40
		Thru/Right		200
	Westbound	Left	100	80
		Thru/Right		150
	Northbound	Left/Thru/Right	300	60
	Southbound	Left		<b>720</b>
		Left/Thru/Right	630	
Van Duyn Road and I-5 Northbound Ramps	Eastbound	Left/Thru		80
	Westbound	Thru/Right		40
	Northbound	Left/Thru/Right		200
Pearl Street and Coleman Street	Eastbound	Left/Thru/Right		--
	Westbound	Left/Thru/Right		--
	Northbound	Left/Thru/Right		20
	Southbound	Left/Thru/Right		30
Pearl Street and Roberts Road	Eastbound	Left/Thru/Right		--
	Westbound	Left/Thru/Right		--
	Northbound	Left/Thru/Right		190
	Southbound	Left/Thru/Right		70
Van Duyn Road and I-5 Southbound Ramps	Eastbound	Thru/Right		--
	Westbound	Left/Thru		--
	Southbound	Left/Thru/Right		90

Note:

Numbers in **BOLD** indicate the existing queue length exceeds the existing storage length.  
 Synchro and SimTraffic were used to calculate queue lengths; see Appendix E for more information.  
 Queue lengths not reported for free-flowing and uncontrolled movements.  
 Queue lengths rounded up to the nearest 10 feet.  
 Storage for through-lanes displayed only when queue is expected to surpass distance to next intersection.

### 2.4.7 Transit Facilities

The Coburg/I-5 interchange is located within the Lane Transit District (LTD). LTD Route 96 and Route 96 Express serve areas within the Coburg/I-5 interchange management area. Figure 2-7 shows transit routes in the management area.

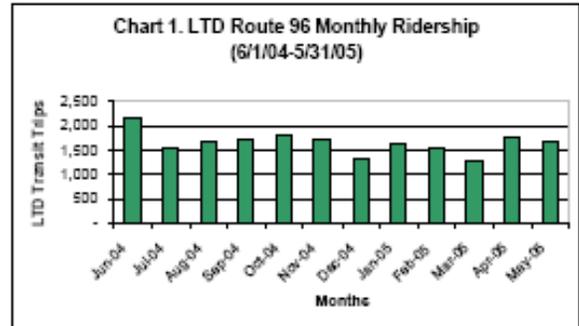
Route 96 heads north from Eugene to Coburg along Coburg Road and Willamette Street. Route 96 serves the interchange study area via E. Pearl Street and Coburg Industrial Way. There are bus stops along E. Pearl Street, as well as at Monaco and the Country Squire Inn stop, and then heads back to Eugene along Coburg Road. Service is generally every 2 hours during the weekdays.



LTD Transit Stop

Route 96 Express travels along I-5 between Eugene and Coburg, and services the Monaco property. The Coburg Express leaves Eugene during the weekdays one time during the morning (7:00 AM) and leaves Coburg one time during the evening (4:10 PM), intending to offer alternatives to Monaco and other industrial employers in Coburg.

From June 1, 2004, to May 31, 2005, total ridership on Route 96 was 19,934. Chart 1 shows the monthly ridership on Route 96 during 2004-2005. Ridership was highest during June 2004 (2,147 transit trips) and was the lowest during March 2005 (1,309 transit trips). Average monthly ridership for the timeframe was 1,661 transit trips. Monthly transit ridership was generally consistent.



There is no weekend or evening transit service to Coburg.

Other demand-response and transportation demand management (TDM) options are available through LTD's Commuter Solutions group. This service offers carpool and vanpool registration, SchoolPool, walking and bicycling groups, bicycling information, ideas for alternative work week schedules and a variety of employer programs. These transit and TDM strategies, if utilized, have some potential to affect operations in the interchange management area.

There is no passenger rail service within the study area. The closest Amtrak station is located in Eugene at 433 Willamette Street.

## 2.4.8 Pedestrian and Bicycle Transportation

Currently there is minimal pedestrian and bicycle activity in the vicinity of the Coburg/I-5 interchange. Figure 2-8 shows bicycle and pedestrian facilities, including existing crosswalks and off-street facilities in the interchange management area.

No observed bicycle parking locations exist in the interchange management area. There are two signalized crosswalks in the interchange management area, at I-5 Northbound Ramps/Van Duyn Road and E. Pearl Street/Coburg Industrial Way.

Table 2-12 lists existing bicycle and pedestrian facilities in the Coburg/I-5 interchange management area. The table also notes the existing sidewalks in the interchange management area that are less than 5 feet wide, which is the desired minimum width for sidewalk functionality (6 feet is preferred per the Oregon Bicycle and Pedestrian Plan, 1995). There is a noticeable lack of walking and bicycling facilities in the area, given the amount of employment in the area, and especially if the area is expected to grow.



**Coburg Ped/Bike Facilities**

The Coburg Zoning Code requires new sidewalks in the Highway Commercial and Light Industrial districts upon redevelopment. The local streets in the residential areas consciously do not require sidewalks in order to preserve the rural character of the local streets. It is a shared street design.

TABLE 2-12  
Coburg/I-5 IAMP Roads—Bicycle and Pedestrian Facilities

Road	Bicycle Facilities	Pedestrian Facilities
Interstate 5	None (N/A)	None (N/A)
Van Duyn Road	None	None
E. Pearl Street	Both sides	South side; 5+ feet (both sides west of Stuart Way)
Coburg Industrial Way	None	None
Roberts Road	None	None
N. and S. Coleman Street	None	None
E. Mill Street	None	None
E. Dixon Street	None	North side; Less than 5 feet
N. Miller Street	None	None
Daray Street	None	None
Sarah Lane	None	Both sides; Less than 5 feet
N. Emerald Street	None	None
E. McKenzie Street	None	None
E. Lincoln Way	None	None
E. Delaney Street	None	None
E. Maple Street	None	None
E. Thomas Street	None	None
Rustic Court	None	Both sides; Less than 5 feet
Shane Court	None	Both sides; Less than 5 feet

## 2.4.9 Air Transportation

There are no air facilities located within the Coburg/I-5 interchange management area, or within the city of Coburg.

### Nearby Public Air Facilities

The closest public air service is at the Mahlon Sweet Field Airport, located approximately 7 miles east of the study area in Eugene. Road access to the Mahlon Sweet Field Airport from Coburg is via Coburg Road or I-5 to Beltline Highway and OR 99W. The airport is not serviced by fixed-route transit.

Mahlon Sweet Field is owned and operated by the City of Eugene, and is open to the public. It is the fifth-largest airport in the northwest, providing commercial air service, air cargo service, and one fixed base operator to handle general aviation needs. The airport provides service to Portland, San Francisco, Seattle, and other cities.

The airport averages 223 operations per day, or over 81,000 annually, with 206 aircraft based at the field. Approximately 38 percent of the operations are transient general aviation, 30 percent are local general aviation, 20 percent are commuters, 10 percent are air carriers, and 2 percent are military. Of the 206 aircraft based on the field, 171 are single-engine airplanes, 15 are jet airplanes, 13 are multi-engine airplanes, and 7 are helicopters.

The airport has two asphalt runways, both in good condition. Runway 16/34 is 8,009 feet long by 150 feet wide and has the following weight limits: 155,000 lb for single-wheel, 190,000 lb for double-wheel, and 300,000 lb for double-tandem aircraft. Runway 3/21 is 5,228 feet long by 150 feet wide and has the following weight limits: 50,000 lb for single-wheel, 65,000 lb for double-wheel, and 100,000 lb for double-tandem aircraft.

### Nearby Private Air Facilities

There are four private air facilities within 5 miles of the Coburg/I-5 interchange management area:

- Briggs Airport (located 1 mile north of Coburg, west of I-5; one aircraft based on the field)
- Pape Bros. Inc. Heliport (located 1 mile north of Coburg, just west of I-5)
- West Point Airport (located 3 miles north of Coburg, just east of I-5; two aircraft based on the field)
- Greer Airport (located 4 miles north of Coburg; west of I-5; four aircraft based on the field)

### 2.4.10 Rail Transportation

There are no commuter or freight rail facilities located within the Coburg/I-5 interchange management area, or within the city of Coburg. The Southern Pacific Railroad formerly owned a right-of-way within the city of Coburg, which has been since partially vacated.

The closest passenger rail service is located in Eugene (Amtrak). This service travels north-south with stops along the west coast, including Seattle; Portland; Salem; Albany; Vancouver, B.C.; and locations in California, with connections to other locations, such as Klamath Falls and Chemult.

### 2.4.11 Water

There are no navigable waterways located within the Coburg/I-5 interchange management area, or within the city of Coburg. The confluence of the McKenzie and Willamette Rivers is located approximately 2 miles southwest of Coburg.

### 2.4.12 Pipelines

There are no significant pipelines located within the Coburg/I-5 interchange management area. The closest significant pipeline is the Williams Gas Pipeline West, which is a natural gas pipeline that runs north-south through the western portion of the city of Coburg. There are no noted deficiencies.

### 2.4.13 Summary of Deficiencies and Issues

The following transportation and land use deficiencies or issues are relevant for the Coburg/I-5 IAMP planning process (in no particular order):

- **Land Use Changes and Expansions.** There is a lot of undeveloped and underdeveloped land within the Coburg/I-5 interchange management area. If land is to develop – or be annexed into Coburg – it would impact the transportation system. Planning for this interchange was partially initiated due to the rapid development of commercial and industrial lands near the interchange.
- **Access Spacing along E. Pearl Street.** Four public roads and multiple private driveways are closer to the interchange than ODOT standards recommend. Roads are not aligned within the interchange management area. Some access points along E. Pearl Street are located close to each other.
- **Operations at nonsignalized intersections.** Operations at the Pearl Street/Roberts Road intersection do not meet acceptable performance standards (the minor movement does not meet the standards).
- **Queuing at Pearl Street/Coburg Industrial Way.** At the Pearl Street/Coburg Industrial Way intersection, the 95th percentile queue length exceeds available storage capacity. The long queue at Pearl Street and Coburg Industrial Way could, however, be an indication that vehicles are waiting at the signal for more than one cycle during peak periods. However, the E. Pearl Street and Coburg Industrial Way intersection does not report V/C ratios higher than Lane County mobility standards.
- **Lack of Pedestrian and Bicycle Facilities.** The interchange management area is noticeably lacking in coordinated and connected bicycle and pedestrian facilities.
- **Transit Service and TDM.** Transit service (particularly Express transit service) is somewhat limited – though it may first require education for commuters using the interchange and surrounding street network. TDM strategies for large employers should be in the mix of concepts put forward.
- **Truck traffic.** Truck traffic includes freight vehicles with three or more axles, and must be accommodated, yet neighborhoods must also be shielded to the greatest extent possible from the impacts of this traffic.
- **Van Duyn Bridge and I-5 ramp geometry.** The Van Duyn Bridge is narrow, and does not offer much room for emergency management or clear visibility; widths are substandard. Some of the grades are difficult for trucks; deceleration length is substandard. The bridge does not have adequate width for pedestrians or bicyclists. Vertical clearance is substandard.



**Coburg City Hall**

## 2.5 Natural and Cultural Resources

The Coburg/I-5 interchange management area includes land in Lane County and the City of Coburg. Project improvements could potentially trigger environmental protection regulations of any of these jurisdictions, as well as state and/or federal regulations. This section provides a broad overview of natural and cultural resources in the study area and related potential project constraints presented. Future project steps will require additional environmental work.

The 1999 *Refinement Plan* included a general environmental assessment conducted by ODOT, intended to provide a rough overview of the area around the interchange. The assessment included review of the natural and built environment for any fatal flaws for an interchange project. According to the *Refinement Plan*, "There were no environmental issues at this time that constitutes a significant problem for future interchange designs." Figure 2-9 includes the Possible Environmental Constraints map from the *Refinement Plan*.

The most relevant concerns for the interchange management area appear to be related to hydrology, floodplain, and wetlands related to Muddy Creek to the west of I-5 and Urr Stream to the east of I-5.

Runoff collection in the southwest corner of the west interchange ramp has been noted by City of Coburg staff. No sites were found that contain historic structures, parks, or environmental overlays.

The area contains a number of potential hazardous material sites due to previous gas stations or existing gas stations. The ODOT assessment determined that the sites could be mitigated if they were impacted by any future interchange project.

The Coburg TSP contains information regarding other natural and cultural resources, which has been adapted for this IAMP.

### 2.5.1 Topography

The topography within Coburg is relatively flat and there are no designated steep slopes in the study area.

### 2.5.2 Soils

The Coburg Comprehensive Plan identifies significant portions within the UGB as having soil restrictions for development. Most of the Highway Commercial plan designation area shows soil limitations. Coburg is largely surrounded by Class II soils. To the north of the residential portion of Coburg lies a mix of Class I and II soils. The soil to the west of Coburg and down the bluff from the present residential areas is Class II soil, as is the area south of Coburg, west of Coburg Road. South off Roberts Road, the soil between the railroad right-of-way and Interstate 5 is Class IV soil. This Class IV soil extends west of the railroad right-of-way until it nears Muddy Creek, where it is replaced by Class II soil.

### 2.5.3 Hydrology

The interchange management area lies within the Willamette River Subbasin. Muddy Creek and Urr Stream are the main drainageways that flow through the study area, generally in a

north-south direction. Muddy Creek is located to the west of I-5. According to the Coburg TSP, it is unlikely that development will be restricted by Muddy Creek because it has already been altered and channelized to accommodate existing and projected development. Urr Stream is located to the east of I-5 within the interchange management area.

## 2.5.4 Floodplains and Floodway

Coburg is located on the northeastern periphery of a 5 percent flood hazard area and the southern portion of the city is subject to a 1 to 2 percent flood hazard. Intensive land uses, such as residential developments, are subject to Federal Emergency Management Agency (FEMA) regulations and City ordinances. Proposals undergo a more extensive review and additional measures must be taken to reduce the risk of flood damage to property in these areas.

According to the FEMA map, the majority of the flood hazard area in Coburg is located along the western edge of Coburg, outside the interchange management area. Other identified flood plain areas are located in a narrow band adjacent to Muddy Creek, which extends through the interchange management area. Because this area is not extensive, it is unlikely that this will influence full development potential. However, it may influence the design of roads and need for specific engineering practices within these areas.

## 2.5.5 Wetlands

The presence of wetlands may influence the extent of development and/or where it occurs on both an area-wide and a site-specific basis. Development proposals that may impact wetlands are regulated and permitted by the Army Corps of Engineers and the Oregon Division of State Lands. If wetlands are located on property, before development can occur, the boundaries of the wetlands must be clearly delineated; wetland impacts should be avoided if possible; and if impacts do occur, mitigation must replace the values lost by development.

Wetland features for this report are based on the National Wetlands Inventory (NWI). The NWI provides basic data about the general characteristics and extent of wetlands in the nation. The NWI identifies the general boundaries of wetlands; however, in many instances, actual wetland boundaries and features are more extensive than what is identified through this national classification system. Coburg also has a Local Wetland Inventory (LWI). The LWI will be examined with any design-level or environmental study of the interchange management area.

Wetland features in Coburg are primarily of a linear type. The NWI also indicates the presence of three polygon-shaped wetlands in the northern portion of the interchange management area, and a small area also shown in the southern portion of the interchange management area. Potential development constraints in the interchange management area include:

- Urr Stream
- 80 to 85 percent soil limitation for three sites related to Muddy Creek
- Floodplain adjacent to Muddy Creek (one polygon site)

### 2.5.6 Open Space and Parks

There are no existing open spaces, as defined by OAR 660-023-0220(1), in the interchange management area. There are no existing or planned parks in the interchange management area. However, the Coburg Parks and Open Space Master Plan identifies a conceptual linear corridor to be used as a hard-surface trail that runs north-south along the west side of Coburg Industrial Way and any realignment of Roberts Road. An Implementation Strategy for this facility is targeted for completion Spring 2009.

Coburg has one community park and an elementary school playground area (totaling about 10 acres) for recreational uses. Neither is located within the interchange management area.

### 2.5.7 Historic Resources

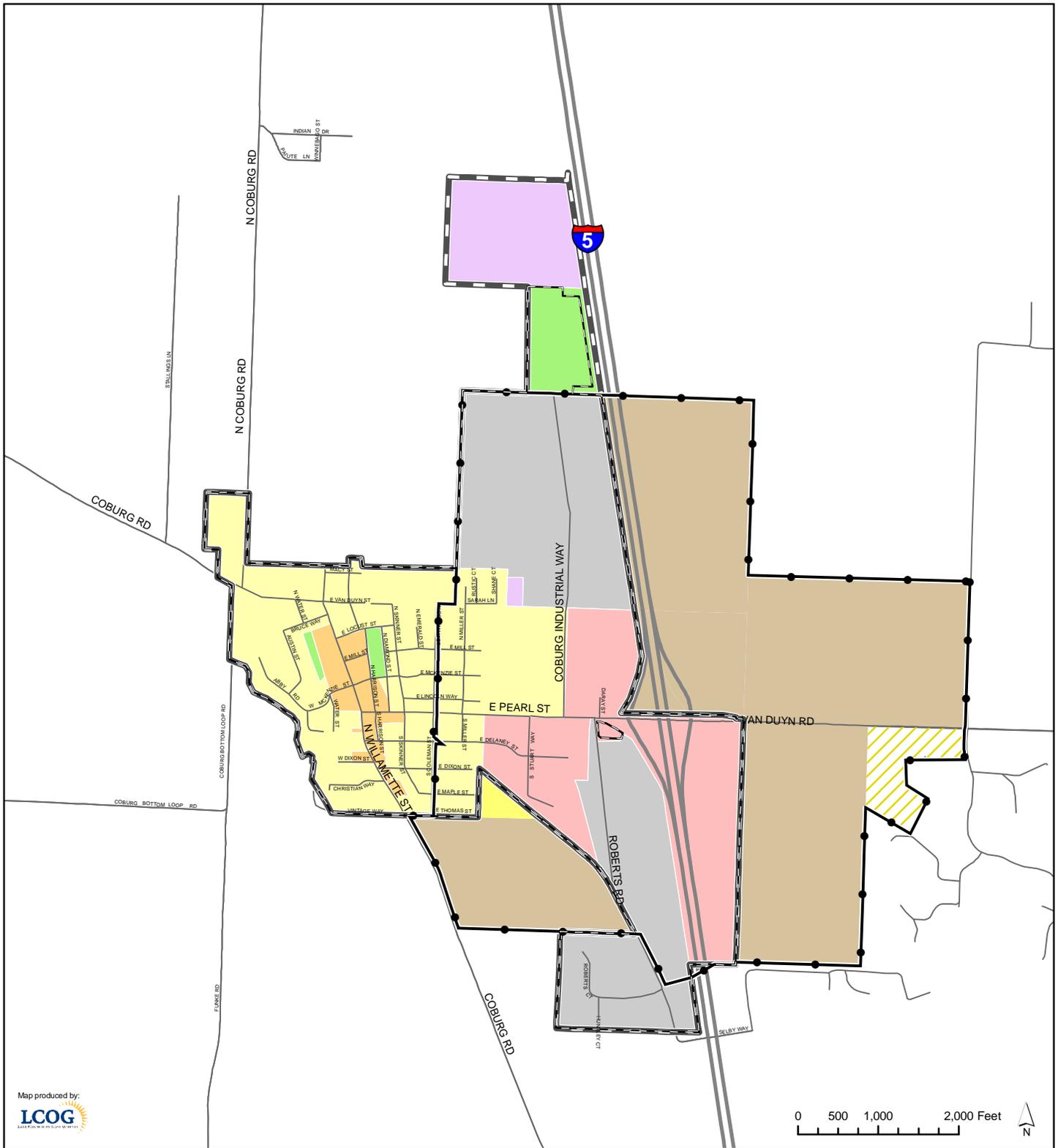
Coburg was the second city in Oregon to be designated a national historic district. The City requires a conditional use or site plan review permit for any alteration or demolition of historical structures. None of the noted historic resources are located in the interchange management area.

### 2.5.8 Archaeological Resources

In 2007, archaeologists conducted a pedestrian survey for the I-5 @ Coburg Interchange Project, Key Number 14649, and recorded three precontact and historic period isolates. Additional fieldwork will be conducted after all rights-of-entry have been obtained.

ODOT is currently consulting with the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, and the Confederated Tribes of Warm Springs, regarding the proposed project. No concerns have been noted at this time.





- IAMP Management Area Boundary <sup>1</sup>
- Coburg City Limits <sup>3</sup>
- Urban Growth Boundary <sup>2</sup>

**Coburg Comprehensive Plan Designations <sup>2</sup>**

- Traditional Residential
- Central Business District
- Park/Recreation
- Highway Commercial
- Light Industrial
- Public Facility

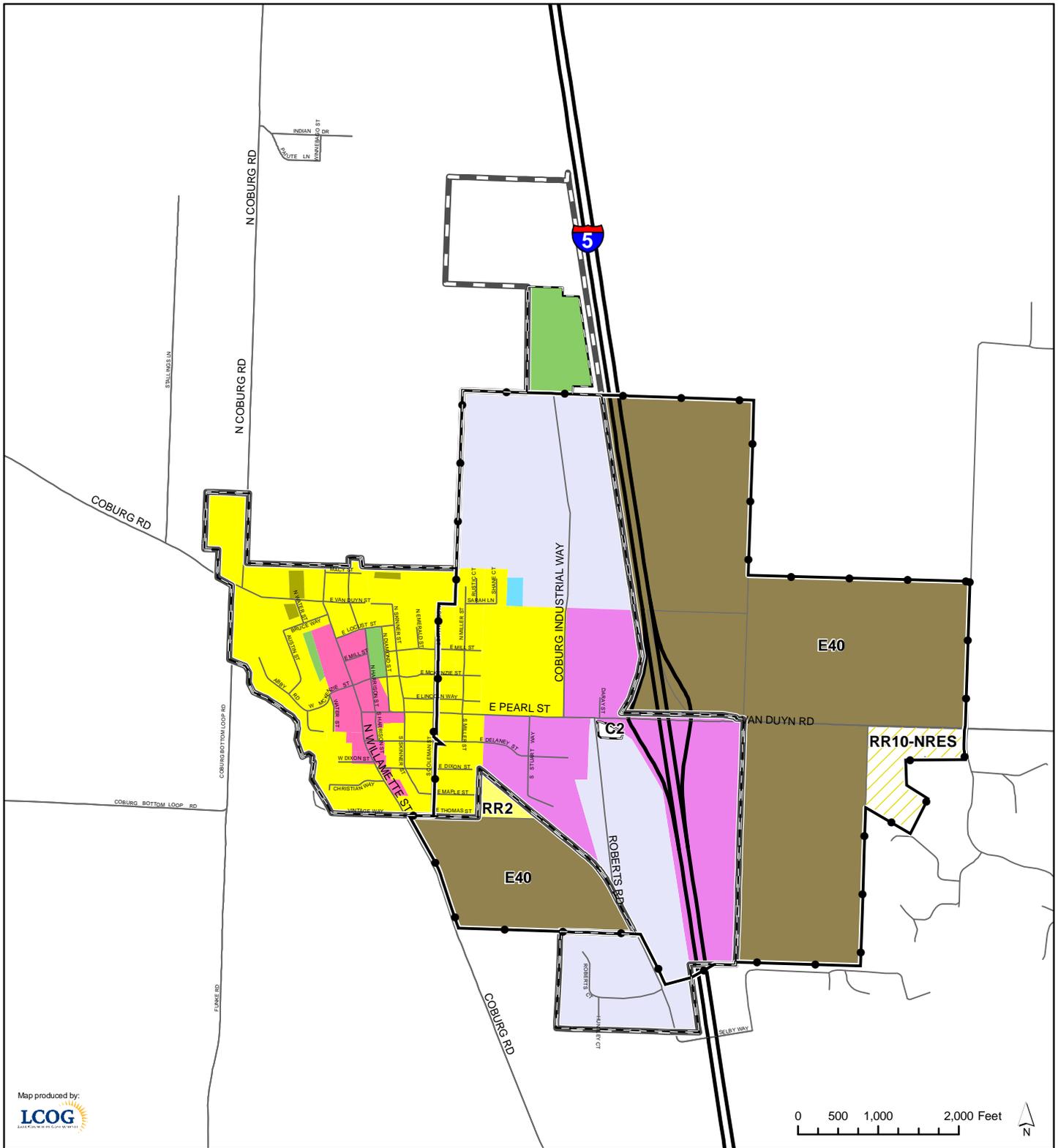
**Lane County Plan Designations (outside UGB) <sup>2</sup>**

- A - Agricultural
- R - Residential
- NRES - Non Resource

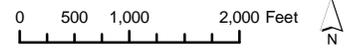
**Figure 2-1  
Comprehensive Plan Designations  
Coburg/I-5 Interchange Area  
Management Plan**

Sources: 1. CH2M Hill; 2. LCOG; 3. USGS

Map Document: (G:\projects\coburg\IAMP\_09\Fig1\_ExistingLandUse.mxd)  
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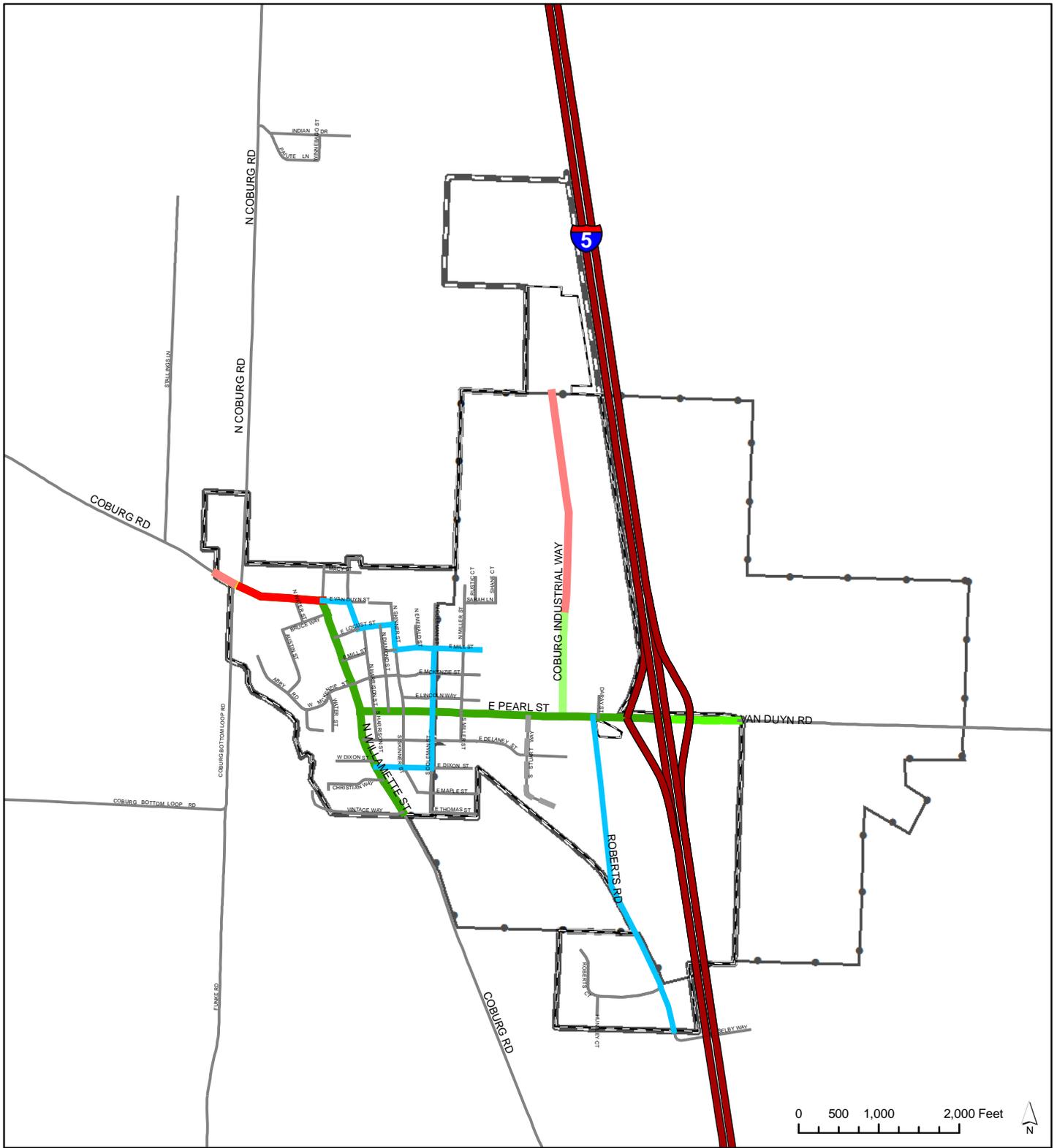
- |  |                                 |                                    |   |                                 |  |                      |
|--|---------------------------------|------------------------------------|---|---------------------------------|--|----------------------|
| IAMP Management Area Boundary <sup>1</sup> | Coburg City Limits <sup>2</sup> | Urban Growth Boundary <sup>2</sup> | <b>Coburg Zoning Districts <sup>2</sup></b> | Central Business                | Traditional Medium Density Residential | Public Water Service |
|  |                                 |                                    | Highway Commercial                          | Parks, Recreation, & Open Space |  |                      |
|  |                                 |                                    | Light Industrial                            | Traditional Residential         |  |                      |

**Lane County Zoning Districts (outside City Limits) <sup>2</sup>**

- |                          |                          |                              |
|--------------------------|--------------------------|------------------------------|
| E40 - Exclusive Farm Use | RR2 - Rural Residential  | C2 - Neighborhood Commercial |
| PR - Public Reserve      | RR10-NRES - Non Resource |                              |

**Figure 2-2  
Zoning Districts  
Coburg/I-5 Interchange Area  
Management Plan**

Sources: 1. CH2M Hill; 2. LCOG

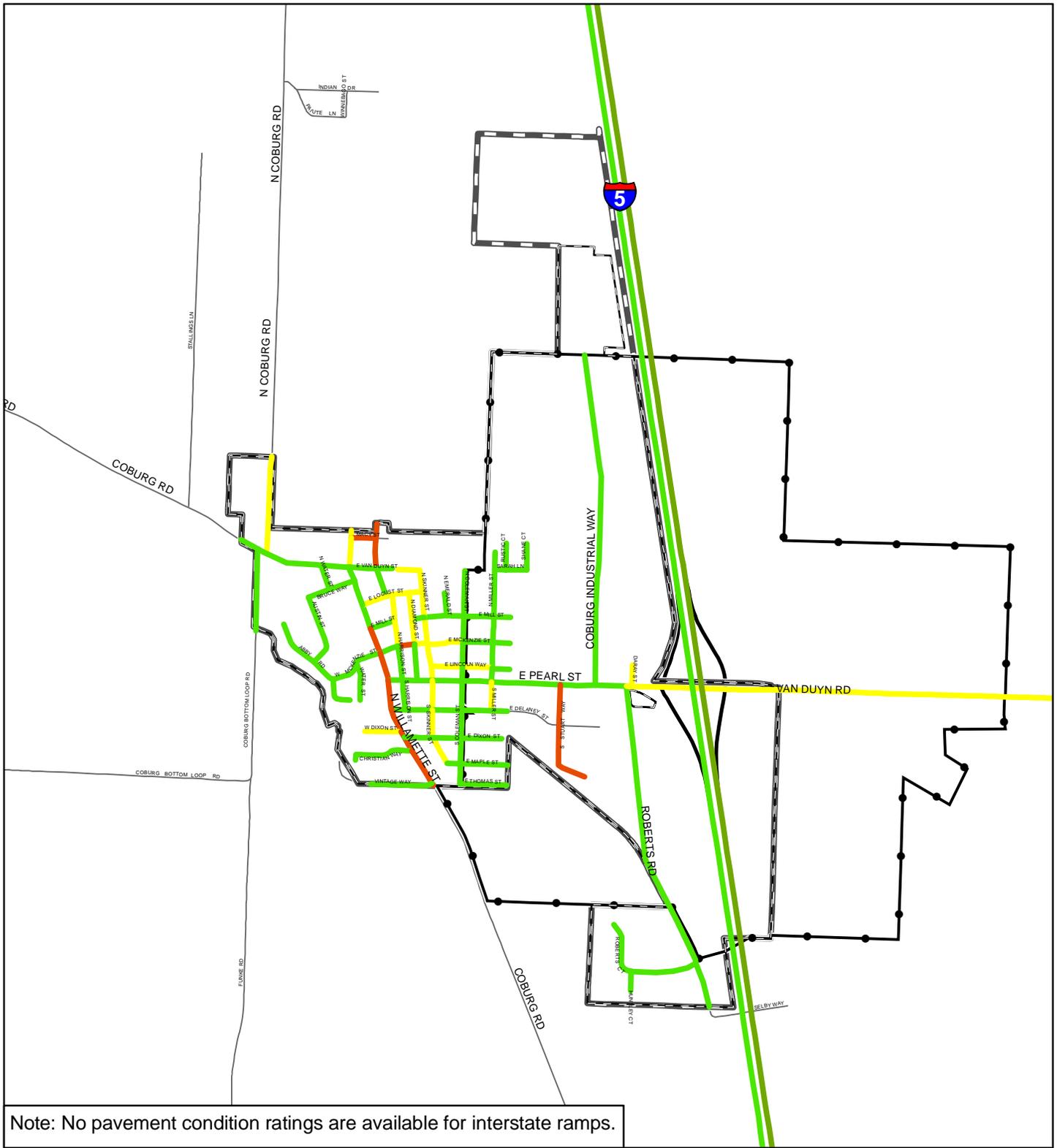


**Figure 2-3  
Functional Classification  
Coburg/I-5 Interchange Area  
Management Plan**

Map produced by:  
 **LCOG**  
 Lane County Office of the County Auditor

Sources: 1. CH2M Hill; 2. LCOG; 3. Coburg TSP 1999; 4. Lane County TSP 2004.

Map Document: (G:\projects\coburg\IAMP\_05\Fig3\_FunctionalClassification\_081003.mxd)  
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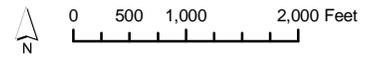


Note: No pavement condition ratings are available for interstate ramps.

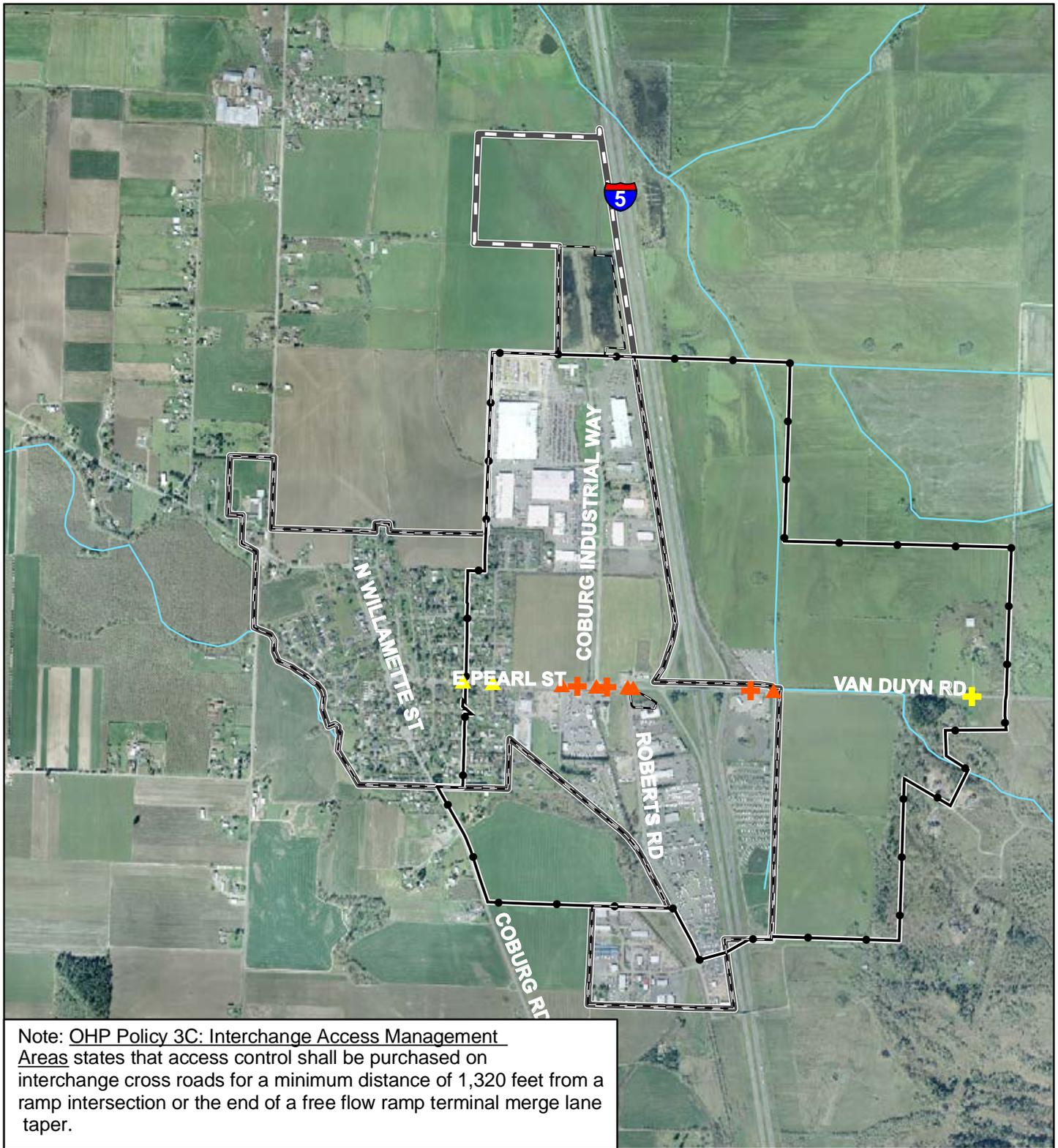
- IAMP Management Area Boundary <sup>1</sup>
- Coburg City Limits <sup>2</sup>
- Urban Growth Boundary <sup>2</sup>

- Coburg Roadway Condition** <sup>3</sup>
- Good
  - Fair
  - Poor

- ODOT Roadway Condition** <sup>4</sup>
- Very Good
  - Good



**Figure 2-4  
Pavement Condition  
Coburg/I-5 Interchange Area  
Management Plan**



Note: OHP Policy 3C: Interchange Access Management Areas states that access control shall be purchased on interchange cross roads for a minimum distance of 1,320 feet from a ramp intersection or the end of a free flow ramp terminal merge lane taper.

-  IAMP Management Area Boundary <sup>1</sup>
-  Coburg City Limits <sup>2</sup>
-  Urban Growth Boundary <sup>2</sup>
-  Rivers & Streams <sup>3</sup>

LCOG 2008 Aerial Photography <sup>3</sup>



**Access within 1320' of Interchange Ramp Terminal <sup>4</sup>**

-  Private Driveway within 1320' of Interchange Ramp
-  Public Roadway within 1320' of Interchange Ramp

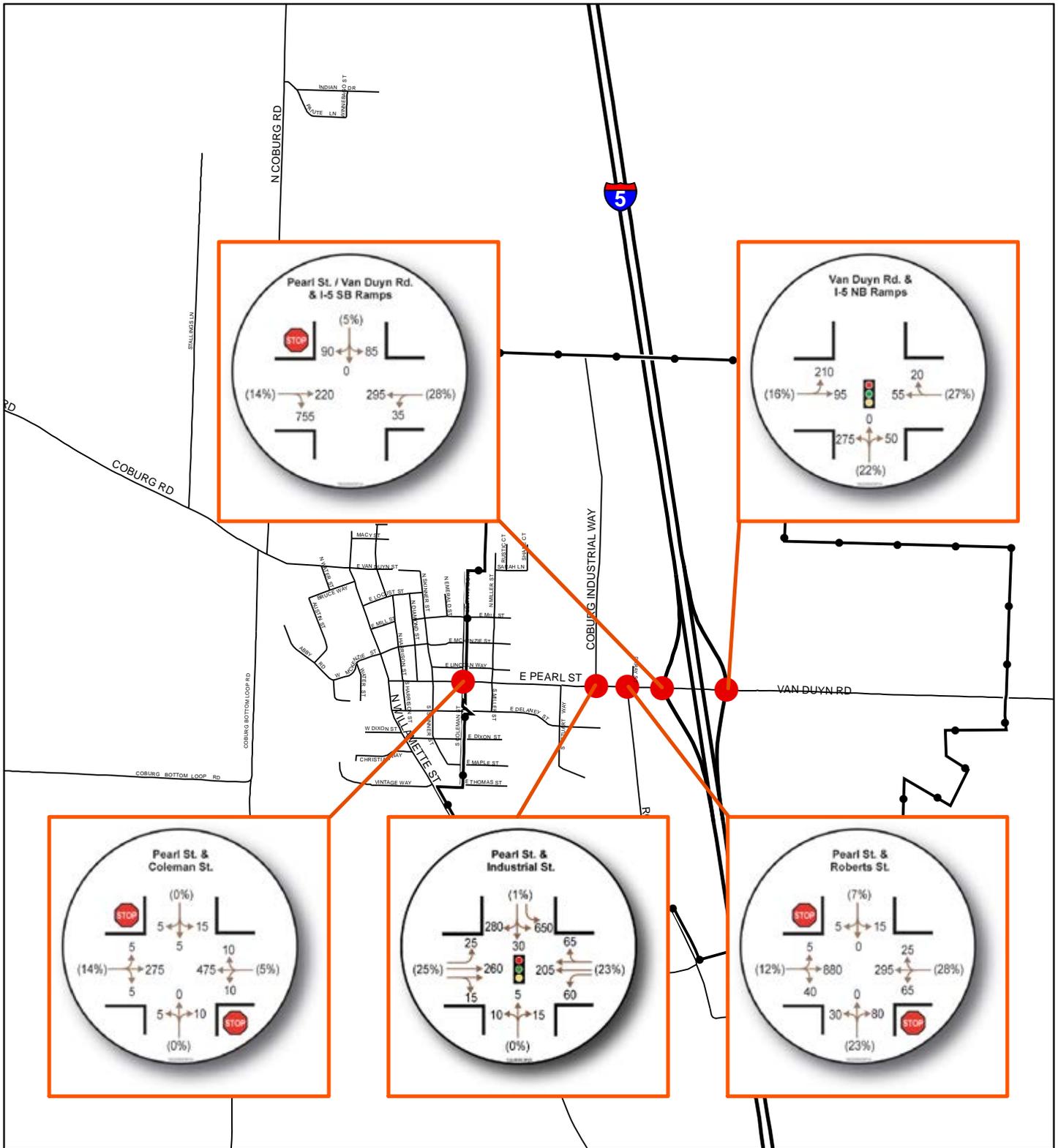
**Other Access Locations (within IAMP boundary) <sup>4</sup>**

-  Private Driveway
-  Public Roadway



0 500 1,000 2,000 Feet

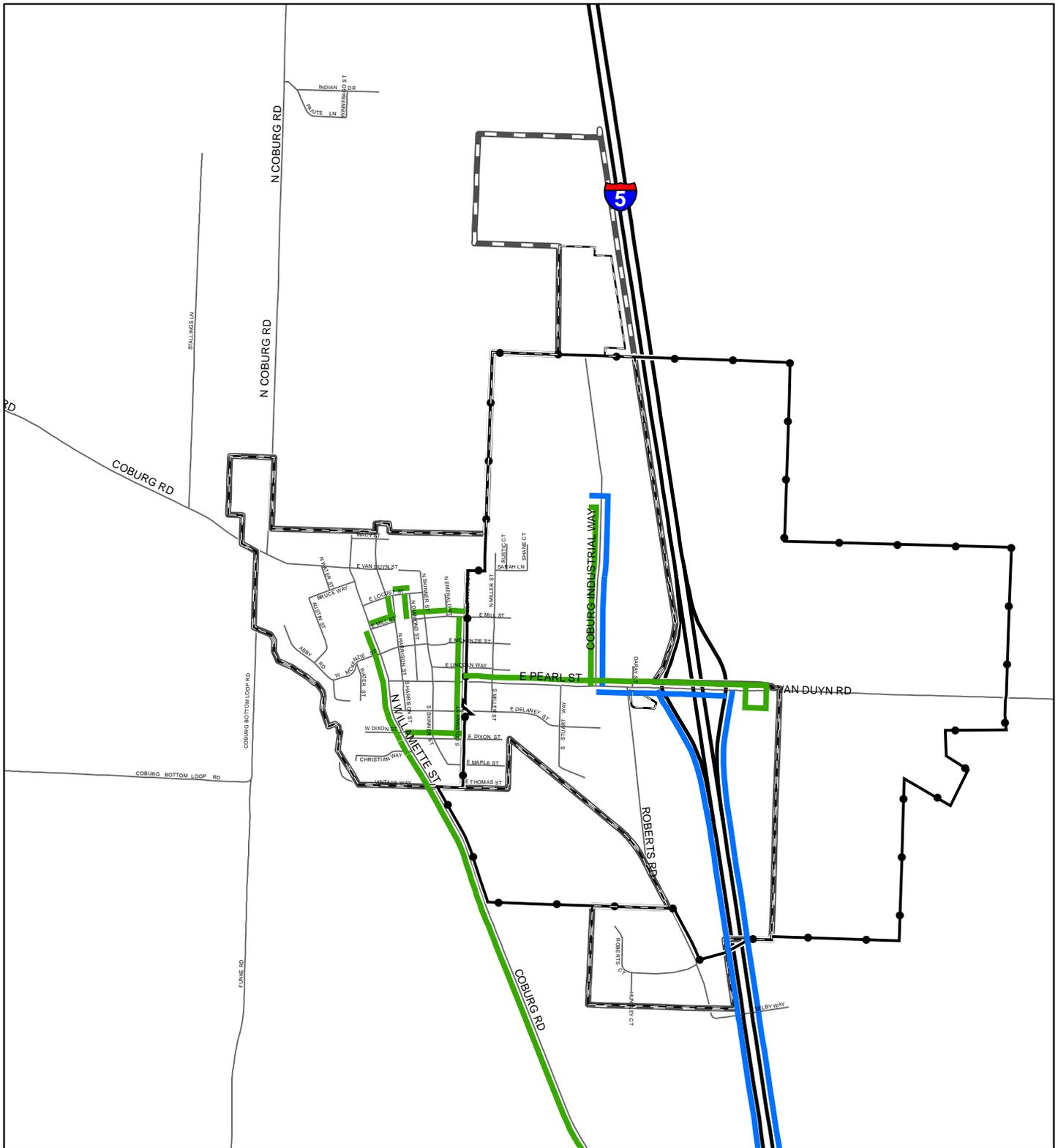
**Figure 2-5  
Study Area Accesses  
Located within 1320' of Interchange  
Coburg/I-5 Interchange Area  
Management Plan**



IAMP Management Area Boundary <sup>1</sup>  
 Study Area Intersections <sup>1</sup>

0 500 1,000 2,000 Feet

**Figure 2-6**  
**Existing Conditions (2005)**  
**30<sup>th</sup> Highest Hour Traffic Volumes**  
**Coburg/I-5 Interchange Area**  
**Management Plan**



-  IAMP Management Area Boundary <sup>1</sup>
-  Coburg City Limits <sup>2</sup>
-  Urban Growth Boundary <sup>2</sup>

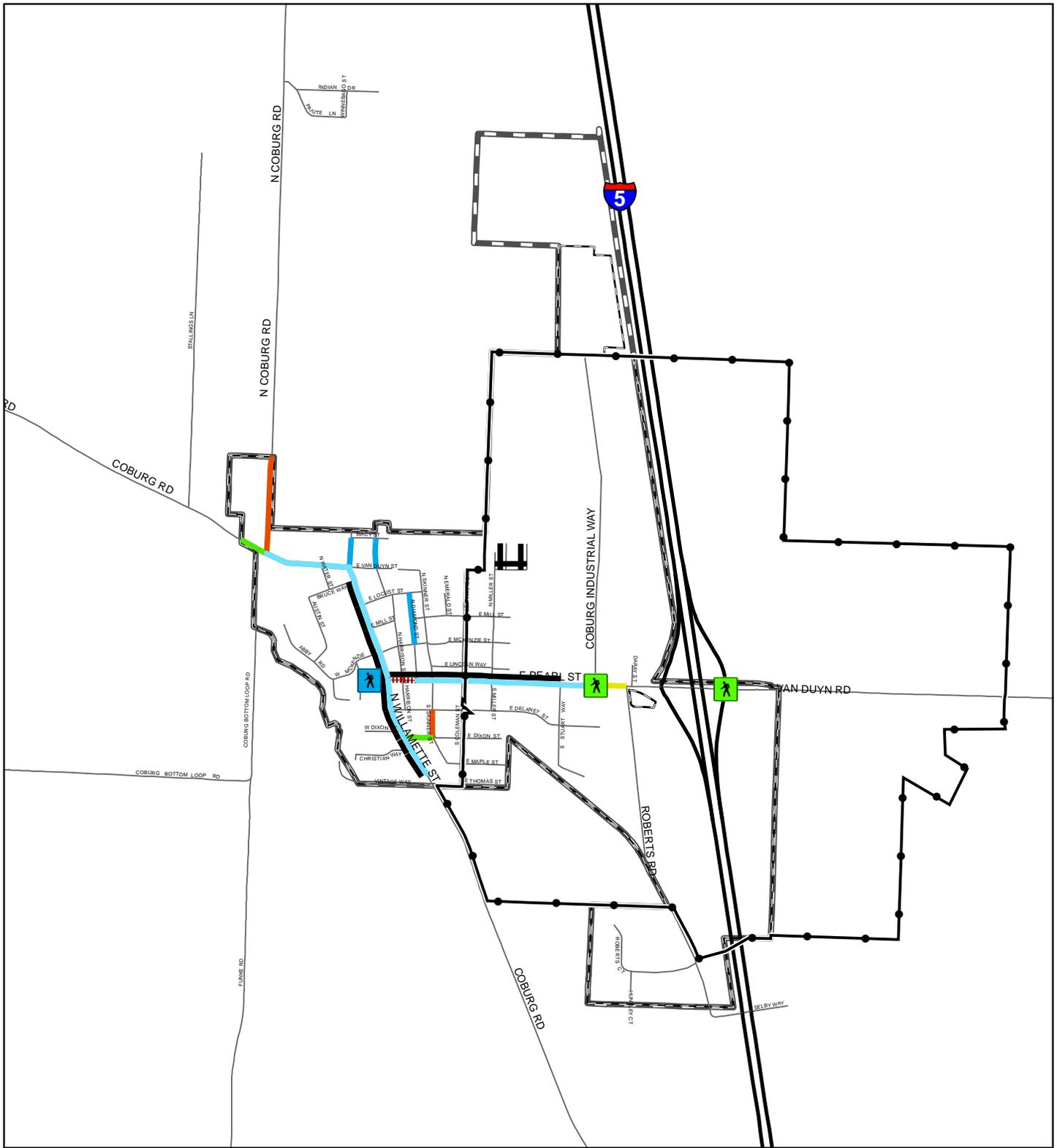
**LTD Bus Routes (2008) <sup>3</sup>**

-  96
-  96x



0 500 1,000 2,000 Feet

**Figure 2-7  
Lane Transit District Bus Routes  
Coburg/I-5 Interchange Area  
Management Plan**

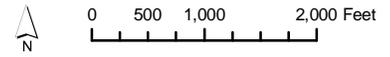


- IAMP Management Area Boundary <sup>1</sup>
- Coburg City Limits <sup>2</sup>
- Urban Growth Boundary <sup>2</sup>

- Pedestrian Signal** <sup>1</sup>
- Signal with four crosswalks
- Signal with south and east crosswalks

- Bike Lanes** <sup>1</sup>
- Both Sides
- South Side

- Sidewalks** <sup>1</sup>
- BOTH SIDES
- EAST SIDE
- SOUTH SIDE
- WEST SIDE
- NORTH SIDE



**Figure 2-8**  
**Pedestrian & Bicycle Facilities**  
**Coburg/I-5 Interchange Area**  
**Management Plan**

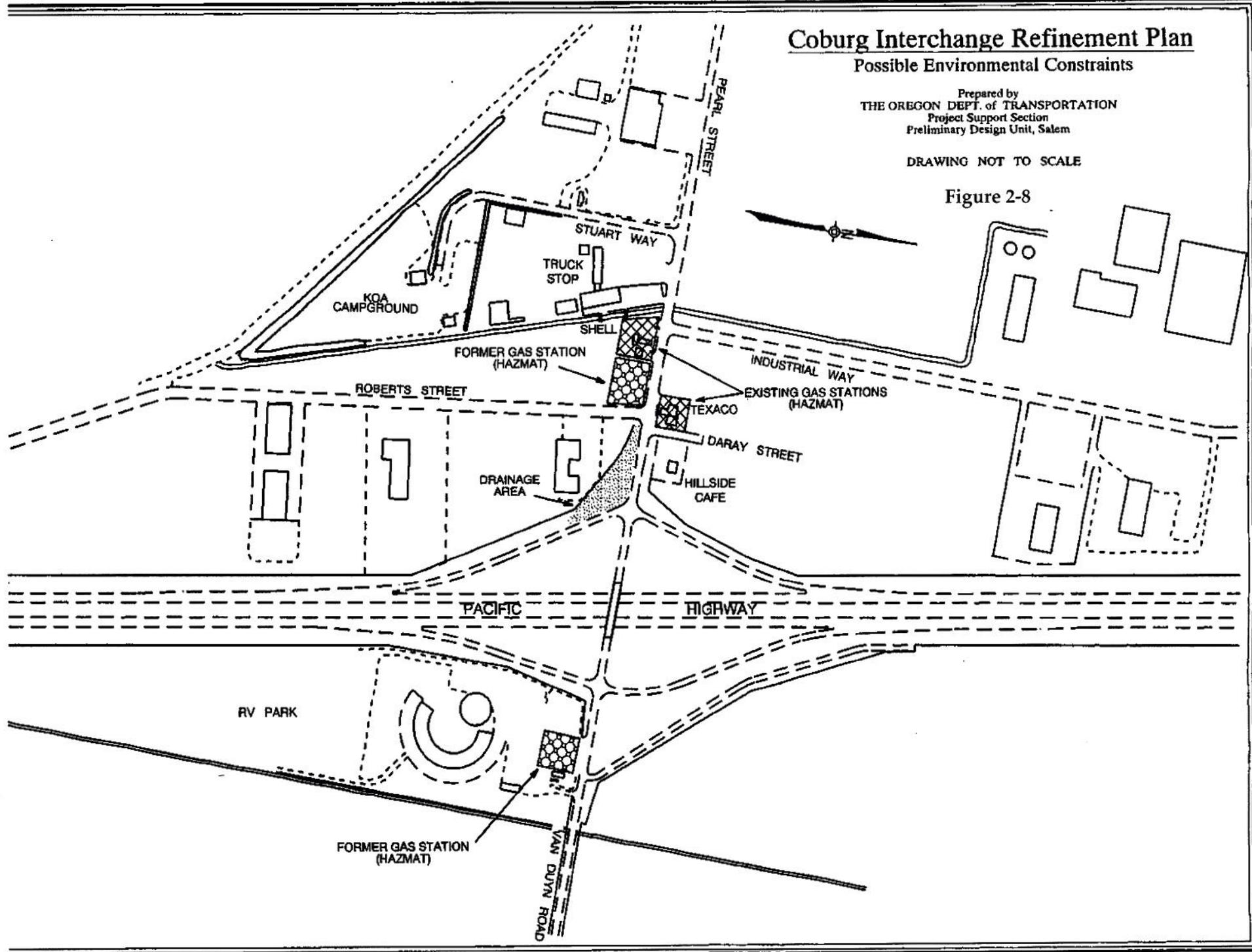
# Coburg Interchange Refinement Plan

## Possible Environmental Constraints

Prepared by  
THE OREGON DEPT. of TRANSPORTATION  
Project Support Section  
Preliminary Design Unit, Salem

DRAWING NOT TO SCALE

Figure 2-8





# Future Conditions Analysis

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## 3.1 Purpose

The Coburg IAMP focuses on planning for the Coburg/I-5 interchange and surrounding area. It is important to understand the impact of anticipated future employment and population growth on the transportation system. Transportation analysis was conducted to identify transportation system deficiencies in year 2031 (a 20+ year planning horizon). This provided a basis for developing alternatives for future transportation infrastructure and strategies.

## 3.2 Land Use Assumptions

### 3.2.1 Coburg Comprehensive Plan Forecasts

Population and employment allocations are important because they directly relate to how development patterns, which are used to determine transportation system deficiencies, are reflected in the transportation model.

Analysis of the Recommended Alternative for the Coburg IAMP was based on population and employment forecasts derived from the *Coburg Comprehensive Plan*. By year 2025, Comprehensive Plan forecasts anticipate population to be 1,819, the number of new dwelling units to be 322, and employment to be 4,672. All of this growth is anticipated to occur west of I-5. Table 3-1 shows 2025 Comprehensive Plan land use assumptions.

TABLE 3-1  
Comprehensive Plan Land Use Assumptions—Year 2025

	Population	New and Total Dwelling Units	Employment
Coburg Comprehensive Plan	1,819	New: 322 Total: 896	4,672

The year 2025 population and employment forecasts from the Comprehensive Plan were used to develop 2025 traffic forecasts, which were in turn grown to year 2031 forecasts based on average annual growth rates.

As described in Section 2, the *Coburg Comprehensive Plan* does not reflect the likelihood that the City of Coburg will expand its UGB. As of this writing, the City had not yet expanded its UGB because of wastewater system constraints (i.e., the lack of a wastewater system).

The RTP predicts 1,131 *more* people (521 more new dwelling units) and 475 *less* jobs in year 2025 than does the current adopted Comprehensive Plan. The Preferred Scenario from the Coburg Urbanization Study predicts 1,508 *more* people (571 more new dwelling units) and

485 *more* jobs in year 2025 than does the current adopted Comprehensive Plan. Both plans assume growth will occur west of I-5. Although the specific population and employment numbers differ for the RTP and *Urbanization Study*, the traffic forecasts are consistent. Alternatives were developed for consistency with the RTP and *Urbanization Study* because it is important that this IAMP provide recommendations that are flexible to accommodate higher levels of growth that would accompany an UGB expansion.

### 3.2.2 Coburg Comprehensive Plan Growth Allocations

The Coburg buildable lands inventory identifies 59.1 acres of vacant/partially vacant land available for residential purposes under current comprehensive plan designations. The analysis also identifies approximately 23 acres (54 lots) with infill potential. For the purposes of estimating the number of households, five dwelling units per acre was assumed for vacant/partially vacant land and a factor of 0.5 was assumed as the rate for infill development per lot. These assumptions resulted in a total of 322 new households (59 \* 5 + 54 \* 0.5) anticipated to be constructed in the Coburg UGB by the year 2025.

The buildable lands inventory indicates 51 acres of vacant and 50 acres of underdeveloped land available to support commercial and industrial employment expansion. The analysis for the IAMP assumed a rate of 20 employees per acre for commercial land and 15 employees per acre for industrial land. Underdeveloped land was assigned a rate of 7.5 employees per acre. This assumption was translated to a redevelopment rate of 50 percent at 15 jobs per acre. In addition, a carrying capacity of 500 jobs requiring no additional land (i.e., expansion of current development) was assumed. Therefore, 1,795 new jobs are anticipated to be located in the Coburg UGB in the year 2025. Table 3-2 shows the detailed land use assumptions by Transportation Analysis Zone (TAZ). The TAZs are illustrated in Figure 3-1.

TABLE 3-2  
Coburg Comprehensive Plan Land Use Assumptions—2025

TAZ (Figure 3-1)	Dwelling Units			Employment			Total Employment
	D.U. Total	% of Growth Allocation	RET+SRV+ EDU	% of Growth Allocation	Other	% of Growth Allocation	
300	42	5%	2	0%	89	2%	91
301	617	69%	130	13%	189	5%	319
302	118	13%	787	79%	3,351	91%	4,138
303	52	6%	0	0%	9	0%	9
304	64	7%	2	0%	21	1%	23
305	1	0%	0	0%	0	0%	0
306	2	0%	80	8%	12	0%	92
<b>Total</b>	<b>896</b>		<b>1,001</b>		<b>3,671</b>		<b>4,672</b>

### 3.3 Forecasted Traffic Operations

The intent of this section is to present the no-build analysis for year 2031, discuss the results, and identify deficiencies and needs. The no-build alternative represents how the transportation system is anticipated to perform in 2031 if no new transportation infrastructure is constructed.

The no-build analysis for this IAMP is based on Comprehensive Plan growth assumptions because UGB expansion – although desired by Coburg – has not yet been adopted into the *Coburg Comprehensive Plan* due to lack of an adequate wastewater facility to serve the additional population. Previous iterations of this IAMP were based on land use scenarios that assumed expansion of the Coburg UGB to accommodate future population forecasts (consistent with the RTP and *Coburg Urbanization Study*). The preferred scenario from previous IAMP iterations assumed all growth would occur west of I-5, and anticipated 485 more jobs and 520 more dwelling units than what can be accommodated with the existing Comprehensive Plan. Future no-build analysis showed that the same intersections that fail under Comprehensive Plan growth assumptions also fail under RTP/*Coburg Urbanization Study* assumptions.

#### 3.3.1 Traffic Forecast Methodology

The forecasted traffic volumes were generated by the Lane Council of Governments (LCOG) regional travel demand model. LCOG provided PM peak-hour turning movement and directional link volumes at each study intersection for existing (2005) volumes and future (2031) no-build alternative volumes.

The forecasted traffic volumes from the model were subsequently post-processed using the iterative directional volume processing method outlined in the *National Cooperative Highway Research Program (NCHRP) Report 255*. An Excel workbook was created to distribute the forecasted entering and exiting link volumes from the model iteratively to arrive at turning movement volumes. The balancing procedure used ten iterations to balance the future entering and exiting trip estimates for each approach leg based on the current turning movement volumes. The balanced 2005 30th highest hour traffic volumes served as the basis for the turning movement distribution. After this process was completed, the future 2031 30th highest hour traffic volumes were analyzed for the no-build future alternative.

#### 3.3.2 Future No-Build (2031) Operations—30th Highest Hour

The No-Build operations scenario assumes that no additional transportation infrastructure would be built during the planning period (through year 2031). The No-Build scenario examines future traffic levels and how well they would be served by the existing road system. Table 3-3 presents the no-build forecasted 2031 intersection V/C ratios for the study area intersections under state jurisdiction and 2031 LOS for the intersections under Lane County jurisdiction.

Three of the five study area intersections (Pearl Street/Coburg Industrial Way, Pearl Street/Roberts Road, Van Duyn Road/I-5 Southbound Ramps) are expected to be congested beyond accepted standards by 2031. At two of the study area intersections (Pearl Street/

Coburg Industrial Way and Pearl Street/Roberts Road), volumes will exceed capacity (V/C > 1.0). The Coleman Street/Pearl Street intersection is expected to meet V/C standards, but not LOS standards.

Table 3-3 shows the mobility standards found in the OHP as well as the Lane County Transportation System Plan/Lane Municipal Code. For V/C for signalized intersections, the overall intersection results are reported. For unsignalized intersections, the movement with the worst operating performance on both the major and minor approaches is reported. Intersection V/C ratios higher than the mobility standards indicate areas of congestion and longer-than-acceptable vehicle delay. Intersection V/C ratios lower than the mobility standards indicate intersections operating at better levels of mobility.

TABLE 3-3  
30th Highest Hour Intersection Operational Analysis—2031 No-Build

Intersection	Road Jurisdiction	LOS and V/C Ratio Standard		Forecasted Maximum LOS and V/C Ratio	
<b>Signalized</b>					
Pearl Street and Coburg Industrial Way	Lane County	(D) 0.85		<b>(F) 1.19</b>	
Van Duyn Road and I-5 NB Ramps	ODOT	0.80 (OHP) 0.75 (HDM)		0.70	
<b>Unsignalized</b>					
		<b>Major</b>	<b>Minor</b>	<b>Major</b>	<b>Minor</b>
Coleman Street and Pearl Street	Lane County	(D) 0.85	(D) 0.95	(A) 0.01	<b>(F) 0.64*</b>
Pearl Street and Roberts Road	Lane County	(D) 0.85	(D) 0.95	(A) 0.11	<b>(F) 8.38</b>
Van Duyn Road and I-5 SB Ramps	ODOT	0.80 (OHP) 0.75 (HDM)		<b>0.93</b>	<b>0.98</b>

\*Meets V/C standard, but not LOS standard.

OHP = Oregon Highway Plan; HDM = Oregon Highway Design Manual

Source: Synchro HCM Unsignalized and Signalized Reports

Notes: For unsignalized intersections, the V/C ratio is presented for the worst movement for each street.

Numbers in **BOLD** indicate V/C ratios and levels of service not meeting mobility standards.

Table 3-4 shows intersection delay in seconds anticipated at study area intersections under the No-Build scenario. Most of the intersections experience significant delay. The delay at Pearl Street/Roberts Road for the minor movement is expected to be too large for the software to calculate. Appendix H includes the full summary of the Synchro traffic analysis report on the 2031 no-build network.

TABLE 3-4  
30th Highest Hour Intersection Delay—2031 No-Build

Study Intersection	Road Jurisdiction	Average Control Delay (seconds)	
<b>Signalized</b>			
Pearl Street and Coburg Industrial Way	Lane County	198.3	
Van Duyn Road and I-5 Northbound Ramps	ODOT	24.4	
<b>Unsignalized</b>		<b>Major</b>	<b>Minor</b>
Coleman Street and Pearl Street	Lane County	0.5	174.2
Pearl Street and Roberts Road	Lane County	4.4	Err*
Van Duyn Road and I-5 Southbound Ramps	ODOT	8.3	82.2

\*The major approach traffic is too large for the stop-controlled minor approach to work effectively. Delay is too large to calculate.

Source: Synchro HCM Unsignalized and Signalized Report.

### 3.3.3 2031 No-Build Scenario Deficiencies—30th Highest Hour

Intersection operational deficiencies were identified based on the 2031 No-Build scenario traffic analysis.

Without infrastructure improvements by 2031, three of the five study area intersections are expected to fail to meet mobility standards. Another intersection is anticipated to not meet LOS standards, even though it is expected to meet V/C standards.

At the Pearl Street/Coburg Industrial Way intersection, the traffic volume is anticipated to exceed full road capacity with a V/C of 1.19. An average vehicle would need to wait for 198.3 seconds to travel through the intersection.

The high V/C ratios for the minor approaches at the unsignalized Pearl Street/Roberts Road and I-5 Southbound Ramps/Van Duyn Road intersections indicate the inadequacy of the stop-controlled operation for those intersections under the no-build scenario. The minor movement on Roberts Road currently fails (V/C=1.01 for year 2005) and further deteriorates to inoperable conditions in 2031 (V/C=8.38).

At the stop-controlled intersections, the major movements (east-west movements on Pearl Street and Van Duyn Road) are too heavy for drivers making minor movements to find gaps to turn into or cross the major streets, resulting in significant delays for the minor approaches. The minor approaches at the unsignalized intersections essentially would not function.

### 3.3.4 Future No-Build (2031) Operations—AM Analysis

Per ODOT request, the project team also analyzed intersection operations for the AM peak hour at the I-5 ramp intersections, because the AM peak hour is characterized by heavy traffic movements related to employment trips to the northwest quadrant. Results showed that the system fails during the AM peak hour at the ramp intersections. Table 3-5 shows the analysis results.

TABLE 3-5  
AM Operational Analysis at I-5 Ramps—2031 No-Build

Study Intersection	Road Jurisdiction	Average Control Delay (seconds)	
<b>Signalized</b>			
Van Duyn Road and I-5 Northbound Ramps	ODOT	206.5	
<b>Unsignalized</b>			
		<b>Major</b>	<b>Minor</b>
Van Duyn Road and I-5 Southbound Ramps	ODOT	0.3	842.5

Source: Synchro HCM Unsignalized and Signalized Report

### 3.3.5 Summary

This analysis shows that the existing transportation network is inadequate to support anticipated 2031 traffic levels, based on Coburg's Comprehensive Plan and the RTP model.

Multiple study intersections are expected to reach or exceed intersection capacity by 2031, causing queuing and delays. Some stop-controlled intersections cannot function with stop-control devices alone, as the conflicts between major and minor movements are too great. The operational analysis assumed interconnection of signals. Future signalization of stop-controlled study intersections would enable them to function properly. Additional improvements such as turn lanes and receiving lanes would increase intersection capacity and further reduce intersection delays. Focus on transportation demand management could also alleviate some of the pressure on the road system.

Figure 3-1

Coburg Area TAZs (from Regional Transportation Plan)





# Alternatives Development and Analysis

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## 4.1 Background and Purpose

Without improvements to the transportation infrastructure in the interchange management area, future traffic in the Coburg/I-5 interchange area is expected to lead to highly congested conditions by 2031. Congestion would be expected to affect intersections along Pearl Street/Van Duyn Road and at the I-5 ramp terminals. This section examines alternatives for improvements or strategies to accommodate anticipated traffic growth in the interchange management area.

## 4.2 Alternatives Development

After analysis of the no-build traffic operations scenario, it was determined that improvements must be made to accommodate anticipated traffic growth. Infrastructure improvements are needed to meet relevant operational standards (ODOT and Lane County volume-to-capacity ratios). It was determined that transit and transportation demand management strategies alone would not be enough to accommodate anticipated traffic growth.

Alternatives development and analysis for this IAMP was based on traffic forecasts built from population and employment forecasts consistent with Coburg's Comprehensive Plan, and consistent with the RTP and *Coburg Urbanization Study*. These plans assume that all future growth will occur west of I-5. Physical improvements included as part of the alternatives analysis were based on realistic traffic forecasts consistent with land use development west of I-5. Therefore, the physical improvements are designed to be flexible enough to accommodate traffic forecasts based on the Comprehensive Plan land use designations and the adopted regional forecasts in the RTP, consistent with the *Coburg Urbanization Study*. Policy recommendations included in the alternative analysis are intended to protect the capacity of the interchange given the likelihood of UGB expansion.

A set of alternatives were developed to mitigate future operational and safety issues. All alternatives were developed to meet ODOT and Lane County operational standards in 2031. It was assumed that all alternatives would be designed to meet current ODOT HDM and interchange design guide standards. Physical alternatives examined focused on conceptual interchange design:

- Alternative A: Diamond interchange with three-lane bridge
- Alternative B: Diamond interchange with four-lane bridge
- Alternative C: Loop ramp (northbound) interchange with four-lane bridge

Figures 4-1, 4-2, and 4-3 include conceptual drawings of these three alternatives.

All of the physical alternatives included the following consistent components:

- Bicycle and pedestrian facilities on the bridge
- Encouragement of transit and transportation demand management (TDM)
- Access management that supports interchange function and operations on Pearl Street/Van Duyn Road
- Realignment of Roberts Road at a signalized intersection with Coburg Industrial Way
- Closure of the existing Roberts Road at Pearl Street
- A new signal at the I-5 Southbound Ramps/Pearl Street intersection
- The eventual development of a gridded local street system west of I-5 off Coburg Industrial Way

All physical alternatives also were assumed to be paired with policy and development code language intended to protect the function of the interchange (e.g., an alternate mobility standard; traffic impact analysis requirements). Appendix J includes LTD transportation demand management strategies. Table 4-1 compares the assumptions for the three alternatives.

## 4.3 Alternatives Analysis

Infrastructure alternatives were developed to improve the intersection operation performance for anticipated traffic in 2031 in order to meet the V/C standard set by ODOT (HDM) as well as Lane County LOS standards in the Lane County TSP. The following sections include future traffic operations analysis for the different alternatives. Figures 4-1 to 4-3 illustrate the road configuration for each alternative.

### 4.3.1 Alternative Comparison—2031 Operations

Several alternatives were developed to evaluate how different interchange configurations would accommodate anticipated future traffic levels. The alternatives are based on the land uses included in the Coburg Comprehensive Plan, but are also intended to accommodate future traffic consistent with the RTP/*Coburg Urbanization Study*.

**Alternative A** (Diamond Interchange with Three-lane Bridge) was developed to accommodate expected traffic growth by 2031 with the least amount of infrastructure necessary. This alternative is generally consistent with improvement concepts identified in the 1999 Refinement Plan. This alternative is technically able to accommodate anticipated traffic growth by 2031; however, it has some operational limitations.

**Alternative B** (Diamond Interchange with Four-lane Bridge) was developed to improve upon operational challenges faced with Alternative A. Alternative B includes a four-lane bridge, which allows northbound-westbound traffic an exclusive receiving lane in addition to a westbound through lane. It is anticipated that the four-lane bridge would allow for quicker through-put, and more flexibility than a three-lane bridge. A four-lane bridge structure allows for future capacity and modification for a minimal cost above the cost of a

three-lane bridge. It also would allow for addition of a loop ramp if deemed necessary beyond year 2031. Operational results showed that this alternative performed better than Alternative A.

TABLE 4-1  
Components of Alternatives

Improvement	Alternatives		
	Alternative A: Diamond Interchange/ Three-lane Bridge	Alternative B: Diamond Interchange/ Four-lane Bridge	Alternative C: Loop Ramp Interchange/ Four-lane Bridge
<b>Coburg TSP Recommendations:</b>	X	X	X
<ul style="list-style-type: none"> <li>• Realignment of Roberts Road to Coburg Industrial Way (signalized intersection)</li> <li>• Access closure of the original Roberts Road at Pearl Street</li> <li>• New connection between realigned Roberts Road and original Roberts Road</li> <li>• New extension of McKenzie Street east to Coburg Industrial Way (one way heading east)</li> <li>• New extension of Shane Court south to Pearl Street</li> <li>• Northern and southern connection alignments (extensions of Roberts Road and Coburg Industrial Way)</li> </ul>			
Pedestrian and Bicycle Facilities on Bridge	X	X	X
Three-lane interchange bridge structure	X		
Four-lane interchange bridge structure		X	X
Diamond interchange structure	X	X	
Loop Ramp (northbound)			X
Signalization at I-5 Southbound Ramps/Van Duyn Road intersection	X	X	X
I-5 Southbound ramps: new exclusive eastbound right-turn lane on Pearl Street and southbound on-ramp receiving lane	X	X	X
I-5 Northbound ramps: new exclusive eastbound left-turn lane and northbound on-ramp receiving lane	X	X	X
Coburg Industrial Way: new exclusive southbound left turn lane and northbound left-turn pocket	X	X	X
Coordinate traffic signal operations along Pearl Street	X	X	X
Access management that supports interchange function and operations on Pearl Street/Van Duyn Road	X	X	X
Encouragement of transit/TDM	X	X	X
Eventual development of local gridded street system west of I-5	X	X	X
Design consistent with ODOT HDM and Interchange Design Guide standards, and Lane County or Coburg standards where applicable	X	X	X

X = Improvement needed for mitigation to reach ODOT or Lane County V/C standards

**Alternative C** (Loop Ramp Interchange with Four-lane Bridge) was developed to examine the effectiveness of isolating the northbound to westbound heavy movement (allowing this movement to bypass the Van Duyn Road/I-5 Northbound ramps intersection). The four-lane bridge is necessary to allow the northbound-to-westbound movement an exclusive receiving lane in addition to a westbound through lane. The operational results for this alternative shows that V/C and LOS results are similar to the results for Alternative B. This alternative would be more costly to implement than Alternative B.

Table 4-2 shows operational analysis results for all of the alternatives. Appendix I includes the full summary of the Synchro traffic analysis report on the 2031 no-build network.

TABLE 4-2  
2031 Intersection Operational Analysis—Alternative Comparison

Intersection	Road Jurisdiction	V/C Ratio Standard		Alt A: Diamond With Three-lane Bridge		Alt B: Diamond With Four-lane Bridge		Alt C: Loop Ramp With Four-lane Bridge	
		Major	Minor	Major	Minor	Major	Minor	Major	Minor
<b>Signalized</b>									
Pearl Street and Coburg Industrial Way	Lane County	0.85		0.77		0.77		0.77	
Van Duyn Road and I-5 Southbound Ramps	ODOT	0.75 (HDM)		0.66		0.64		0.64	
Van Duyn Road and I-5 Northbound Ramps	ODOT	0.75 (HDM)		0.70		0.50		0.40	
<b>Unsignalized</b>									
Coleman Street and Pearl Street	Lane County	0.85	0.95	0.01	0.25	0.01	0.25	0.01	0.25

Source: Synchro HCM Unsignalized and Signalized Reports.

Table 4-2 shows that all alternatives are able to support the anticipated levels of traffic by year 2031. Alternatives B and C perform generally better than Alternative A. Alternatives B and C perform similarly, with small differences at the Van Duyn Road/I-5 Northbound Ramps intersection. The loop ramp is not necessary to meet the mobility standard. A four-lane bridge offers more flexibility for a minimal additional cost, and better accommodates the operational flow and channelization.

Table 4-3 presents average intersection delay for each alternative. The Coleman Street and Pearl Street intersection is expected to perform acceptably based on the County V/C standard however, there will be some delay on the minor street approaches. This may warrant consideration for signalization depending on local circulation needs and objectives.

Table 4-4 contains review of queue length for each alternative.

ODOT developed preliminary cost estimates for the alternatives. Construction cost estimates range from 25 to 35 million for the alternatives.

TABLE 4-3  
2031 Intersection Delay—Alternatives Comparison

Intersection	Alt A: Diamond and Three-lane Bridge		Alt B: Diamond and Four-lane Bridge		Alt C: Loop Ramp and Four-lane Bridge	
	Average Control Delay		Average Control Delay		Average Control Delay	
<b>Signalized</b>						
Pearl Street and Coburg Industrial Way	34.7		34.7		34.7	
Van Duyn Road and I-5 Southbound Ramps	13.3		13.0		13.0	
Van Duyn Road and I-5 Northbound Ramps	30.7		22.2		16.5	
<b>Unsignalized</b>						
	<b>Major</b>	<b>Minor</b>	<b>Minor</b>	<b>Minor</b>	<b>Major</b>	<b>Minor</b>
Coleman Street and Pearl Street	0.3	45.3	0.3	45.3	0.3	46.5

Source: Synchro HCM Unsignalized and Signalized Reports.

TABLE 4-4  
2031 30th Highest Hour Queue Lengths—Alternatives Comparison

Intersection	Approach	Lane Group	Storage (feet)					Queue Length (feet)				
			Existing		No Build			Existing		No Build		
			2005	2031	Alt A	Alt B	Alt C	2005	2031	Alt A	Alt B	Alt C
Pearl Street and Coburg Industrial Way	Eastbound	Left	200	200	200	200	200	40	<b>310</b>	140	140	140
		Thru/Right						200	210	180	180	180
	Westbound	Left	100	100	100	100	100	80	60	<b>120</b>	<b>120</b>	<b>120</b>
		Thru/Right						150	290	220	220	220
	Northbound	Left			150	150	150			70	70	70
		Left/Thru/Right						60	40			
		Thru/Right								70	70	70
	Southbound	Left	300	300	425	425	425	<b>720</b>	<b>1050</b>	360	360	360
Thru/Right							400	630	1070	70	70	70
Van Duyn Road and I-5 Northbound Ramps	Eastbound	Left			350	350	350			190	190	160
		Left/Thru						80	160			
		Thru								60	60	50
	Westbound	Thru/Right						40	90	40	40	40
	Northbound	Left								140	140	
		Left/Thru/Right						200	300	130	130	
Thru/Right											--	
Pearl Street and Coleman Street	Eastbound	Left/Thru/Right						--	10	10	10	10
	Westbound	Left/Thru/Right						--	10	10	10	10
	Northbound	Left/Thru/Right						20	20	10	10	10
	Southbound	Left/Thru/Right						30	70	30	30	30
Pearl Street and Roberts Road	Eastbound	Left/Thru/Right						--	10			
	Westbound	Left/Thru/Right						--	10			
	Northbound	Left/Thru/Right						190	error			

TABLE 4-4  
2031 30th Highest Hour Queue Lengths—Alternatives Comparison

Intersection	Approach	Lane Group	Storage (feet)			Queue Length (feet)						
			Existing 2005	No Build 2031	Alt A	Alt B	Alt C	Existing 2005	No Build 2031	Alt A	Alt B	Alt C
			Southbound	Left/Thru/Right					70	error		
Van Duyn Road and I-5 Southbound Ramps	Eastbound	Thru/Right					--	--	370	370	370	
		Right							40	40	40	
	Westbound	Left			150	150	150			20	20	20
		Left/Thru						--	--			
		Thru								130	60	60
	Southbound	Left/Thru/Right					90	280	70	70	70	

Note:

Numbers in **BOLD** indicate the queue length exceeds the storage length.

Synchro and SimTraffic were used to calculate queue lengths; see Appendix E for more information.

Queue lengths not reported for free-flowing and uncontrolled movements.

Queue lengths rounded up to the nearest 10 feet.

Storage for through-lanes displayed only when queue is expected to surpass distance to next intersection.

### 4.3.2 Alternatives Development—Previous IAMP Iterations

As discussed earlier, the interchange configuration alternatives discussed above were developed to be consistent with the *Coburg Comprehensive Plan*, RTP, and *Coburg Urbanization Study* in order to ensure the recommended physical infrastructure does not become obsolete once Coburg expands its UGB and amends its Comprehensive Plan.

In previous iterations of this IAMP, instead of interchange configurations, the alternatives were based on differing land use scenarios. One scenario was consistent with the RTP/*Coburg Urbanization Study* (UGB expansion west of I-5), and two were based on UGB expansions east of I-5. In previous IAMP iterations, the preferred scenario was UGB expansion west of I-5. Through operational analysis related to this preferred scenario, it was determined that a diamond/four-lane bridge or loop ramp/four-lane bridge would be adequate to accommodate anticipated traffic levels.

## 4.4 Alternatives Evaluation

### 4.4.1 Evaluation Criteria and Measures of Effectiveness—Background

The purpose of evaluation criteria is to ensure that the future alternatives for the interchange management area are evaluated for consistency with the overall intent of the project and state and local goals. Alternatives were examined against the criteria to ensure consistency with ODOT and local community goals. This will ensure that the Recommended Alternative in the IAMP best addresses future transportation and land use changes in the interchange management area. The evaluation criteria analysis is used as a tool to help inform decision-making.

In the context of the Coburg/I-5 IAMP, *evaluation criteria* are defined as state and local goals that help to determine the adequacy of an alternative to solve the problems the project is

intended to solve, in the context of the local community. *Measures of effectiveness* are ways to measure whether or not—or to what extent—an alternative meets a specific criterion.

The basis for the evaluation criteria include issues identified during the existing conditions analysis and future no-build traffic operations analysis, as well as input from the project open house held on September 27, 2005. Criteria and measures of effectiveness are consistent with the goals of the OHP with regard to planning and management of grade-separated interchanges.

#### 4.4.2 Evaluation Criteria

The following evaluation criteria were identified as relevant to planning for the Coburg/I-5 interchange management area. The evaluation criteria are listed in no particular order.

- **Traffic Operations.** *Does the alternative mitigate existing and anticipated (2031) traffic congestion?* This criterion measures the extent to which alternatives alleviate existing and anticipated future traffic congestion.
- **Safety.** *Does the alternative mitigate existing or anticipated safety issues?* This criterion measures the extent to which alternatives ensure safety for all users (drivers, transit, pedestrians, and bicyclists).
- **Mobility.** *Does the alternative enhance mobility for all users?* This criterion measures the extent to which alternatives enhance mobility for transportation users (freight, nonmotorized, transit, transportation disadvantaged, etc.).
- **Land Use.** *Does the alternative minimize land use impacts? Is the alternative consistent with state and local land use planning goals?* This criterion measures the extent to which alternatives minimize property impacts and impacts on existing residential and business access. This criterion relates to economic development because it also evaluates the extent to which alternatives impact future business development through property takes. It also relates to consistency with local, regional, and statewide land use plans.
- **Environmental and Social Impacts.** *Does the alternative minimize environmental and social impacts, including impacts on existing and future development and low-income/minority populations?* Most alternatives will have some built and natural environmental impacts. This criterion measures the extent to which alternatives minimize impacts on the social and environmental considerations for the interchange management area. This criterion includes environmental justice considerations.
- **Support for Implementation.** *Can the alternative be supported by both the state and local community?* This criterion measures the extent to which alternatives can be agreed upon that meet the needs and interests of stakeholders within acceptable timelines.
- **Cost-Effectiveness.** *Is the scale of the alternative consistent with the benefits it provides? Is it a practical, affordable solution?* All alternatives will have costs associated with development and implementation. This criterion evaluates how effective the alternative is at relieving congestion compared to the cost.

### 4.4.3 Subcriteria and Measures of Effectiveness

Subcriteria and measures of effectiveness were identified for each evaluation criterion listed in the section above. The subcriteria further define the evaluation criteria. The evaluation measures describe the extent to which an alternative concept fulfills a specific subcriterion. The evaluation measures are summarized descriptively (qualitatively and quantitatively) to show how the alternative concepts rate in comparison to each other. Table 4-5 describes the subcriteria and evaluation measures. These are listed in no particular order.

TABLE 4-5  
Coburg/I-5 IAMP Evaluation Criteria and Measures of Effectiveness

Subcriteria	Description	Evaluation Measures
<b>Criterion: Traffic Operations</b>		
V/C ratio	Does the alternative bring existing and future congestion to acceptable levels (state and county V/C ratios)?	High—the alternative meets relevant state and local V/C standards for all study area intersections Medium—the alternative meets relevant state and local V/C standards for some study area intersections Low—the alternative does not meet relevant state and local V/C standards for any study area intersections
Delay	Does the alternative decrease delay in comparison to the no-build scenario? To what extent?	High—the alternative decreases delay as compared to the no-build scenario Medium—the alternative maintains delay as compared to the no-build scenario Low—the alternative increases delay as compared to the no-build scenario
Other solutions	Does the alternative offer other solutions to mitigate capacity issues (e.g., policy, TDM, ITS, transit, or multimodal options)?	High—the alternative provides for other solutions to mitigate capacity issues Low—the alternative does not provide for other solutions to mitigate capacity issues
<b>Criterion: Safety</b>		
Safety performance—geometry	Does the alternative mitigate safety issues and concerns related to outdated geometry at the interchange?	High—the alternative updates interchange geometry Low—the alternative does not update interchange geometry
Access management	Does the alternative decrease the number of conflict points related to public and private accesses? Does the alternative move toward ODOT’s preferred spacing (1,320’) from interchange ramp terminals on Pearl Street/Van Duyn?	High—the alternative reduces the number of accesses located within 1,320’ of the interchange, in comparison to the no-build scenario Medium—the alternative maintains the number of accesses located within 1,320’ of the interchange, in comparison to the no-build scenario Low—the alternative increases the number of accesses located within 1,320’ of the interchange, in comparison to the no-build scenario
Design Standards	Can the alternative be designed to optimal design standards (design speed, acceleration/deceleration lanes, access spacing, horizontal/vertical curves, and vertical clearance)?	High—alternative meets design standards as proposed, with minimal or no additional mitigation Medium—alternative requires moderate mitigation to meet design standards; requires a design exception Low—alternative requires significant mitigation;

TABLE 4-5  
Coburg/I-5 IAMP Evaluation Criteria and Measures of Effectiveness

Subcriteria	Description	Evaluation Measures
		requires more than one design exception
<b>Criterion: Mobility</b>		
Freight Movement	Does the alternative facilitate freight movement?	High—the alternative enhances freight movement, in comparison to the no-build scenario Medium—the alternative provides for maintenance of the same level of freight movement, in comparison to the no-build scenario Low—the alternative impedes freight movement, in comparison to the no-build scenario
Mobility for the Transportation Disadvantaged	Does the alternative facilitate mobility for the transportation disadvantaged?	High—the alternative improves mobility for the transportation disadvantaged, in comparison to the no-build scenario Medium—the alternative maintains the same level of mobility for the transportation disadvantaged, in comparison to the no-build scenario Low—the alternative impedes the level of mobility for the transportation disadvantaged, in comparison to the no-build scenario
Impact on nonmotorized facilities	How well does the alternative advance pedestrian and bicycle system plans?	High—the alternative advances pedestrian and bicycle system plans Medium—the alternative does not address pedestrian and bicycle system plans Low—the alternative impedes pedestrian and bicycle system plans
<b>Criterion: Land Use Impacts</b>		
Disruptions and Displacements	How many properties will be impacted? To what level does the alternative impact businesses and properties? Is right-of-way available?	High—the alternative does not require takes of commercial or industrial zoned land Medium—the alternative requires minimal takes of commercial or industrial zoned land Low—the alternative requires significant takes of commercial or industrial zoned land
Business and Residential Accesses	To what extent will private accesses will be impacted?	High—the alternative does not impact private accesses Medium—the alternative requires minimal impact to private accesses Low—the alternative requires significant impact to private accesses
Compatibility with Local Comprehensive Plans	Is the alternative consistent with the Coburg Comprehensive Plan?	High—the alternative is consistent with the Comprehensive Plan Low—the alternative is not consistent with the Comprehensive Plan

TABLE 4-5  
Coburg/I-5 IAMP Evaluation Criteria and Measures of Effectiveness

Subcriteria	Description	Evaluation Measures
Impact to resource-zoned land	To what extent does the alternative impact resource-zoned land, including OAR-defined high value agricultural land?	High—the alternative does not require takes of resource-zoned land Medium—the alternative requires minimal takes of resource-zoned land Low—the alternative requires significant takes of resource-zoned land
<b>Criterion: Environmental and Social Impacts</b>		
Impact on sensitive areas and endangered species	How will implementation of an alternative impact known natural and cultural resources or endangered species?	High—the alternative does not impact known natural and cultural resources or endangered species Low—the alternative impacts known natural and cultural resources or endangered species
Impact to critical community resources	Would the alternative require any direct impacts to parks, schools, historic buildings, or other similar resources?	High—the alternative does not require removal of critical community resources Low—the alternative requires removal of critical community resources
Noise	What noise impacts to residential development will result from implementation of the alternative?	High—the alternative is located more than 400' from residential development Medium—the alternative is located 200'-400' from residential development Low—the alternative is located less than 200' from residential development
Required permits and approvals	Is the alternative likely to meet requirements for permits and approvals?	High—the alternative is likely to meet permit and approval requirements Low—the alternative is not likely to meet permit and approval requirements
Impact to low-income and minority populations (related to environmental justice)	Does the alternative negatively impact minority or low-income populations?	High—the alternative does not displace or negatively impact minority or low-income populations Low—the alternative displaces or negatively impacts minority or low-income populations
Economic Development	To what extent does the alternative advance City economic development plans? Does it restrict future development opportunities?	High—the alternative advances economic development plans and requires no takes of undeveloped land Medium—the alternative does nothing to advance economic development or requires minimal takes of undeveloped land Low—the alternative impedes economic development or requires significant takes of undeveloped land
<b>Criterion: Support for Implementation</b>		
Political Feasibility	How easy would it be to implement the alternative?	High—the alternative has political support Medium—the alternative has some political support Low—the alternative has little or no political support
Multijurisdictional Coordination	Can all affected agencies (ODOT, City of Coburg, Lane County) support the alternative?	High—all affected agencies can support the alternative Low—one or more of the affected agencies do not support the alternative

TABLE 4-5  
Coburg/I-5 IAMP Evaluation Criteria and Measures of Effectiveness

Subcriteria	Description	Evaluation Measures
Constructability	How disruptive will the alternative be to construct?	High—the alternative will require little disruption Medium—the alternative will require some disruption Low—the alternative will require significant disruption
<b>Criterion: Cost</b>		
Regional Coordination	Does the alternative involve more than one jurisdiction? Can interjurisdictional cooperation be leveraged for funding opportunities (match, etc.)?	High—the alternative allows for interjurisdictional cooperation Low—the alternative does not allow for interjurisdictional cooperation
Cost Effectiveness	Does the alternative provide benefit consistent with the level of investment?	High—the alternative requires a relatively low level of investment Medium—the alternative requires a moderate level of investment Low—the alternative requires a relatively high level of investment

### Criteria Application

The following review of evaluation criteria displays the advantages and disadvantages of the project alternatives. This allows decision-makers to compare alternatives to ensure that those forwarded for consideration meet the goals of the community.

Because future congestion in the interchange management area is the motivation behind the IAMP, the traffic operations criteria weighs heavily in any decision.

Application of the criteria to the three alternatives shows that for most of the criteria categories, the alternatives have similar ratings. This is because the alternatives have similar characteristics.

Primary differences among the mitigation strategies include traffic operations, land use impacts, cost, and support for implementation.

Alternatives B and C provide for greater capacity than Alternative A. The four-lane bridge (part of Alternatives B and C) offers more flexibility for growth than the three-lane bridge (part of Alternative A), and maximizes value to the state by investing in infrastructure that will last more than 20 years. These options also provide better accommodation for operations and channelization, which will do a better job of allowing additional growth if Coburg expands its UGB and amends its Comprehensive Plan. Alternative A would not adequately accommodate future traffic conditions if a UGB expansion were to occur consistent with the RTP. For these reasons, ODOT, LCOG, and other entities may not support this option.

Alternatives B and C are expected to have more property and access impacts than Alternative A, due to the need for more land to accommodate the northbound off-ramp configuration (either two lanes or a loop ramp) and to ensure the approaching channelization lines up with the bridge travel lanes. Alternative C is anticipated to cost more than Alternative A or B.

All things considered, Alternative B provides the most benefit. Table 4-6 shows the ratings for each of the alternatives according to the criteria.

TABLE 4-6  
Coburg/I-5 IAMP Alternatives and Evaluation Criteria Application

Criteria	Mitigation Alternatives		
	Alternative A: Diamond and Three-lane Bridge	Alternative B: Diamond and Four-lane Bridge	Alternative C: Loop Ramp and Four-lane Bridge
<b>Traffic Operations:</b> Alternatives B and C provide for slightly greater capacity than Alternative A. All alternatives are anticipated to result in improved traffic operations as compared to the future no-build scenario. All alternatives are able to accommodate anticipated 2031 traffic levels consistent with the Comprehensive Plan. Alternative A, however, would not accommodate traffic based on the RTP.			
V/C ratio	Medium	High	High
Delay	Medium	High	High
Other solutions	High	High	High
<b>Safety:</b> All alternatives are expected to update interchange geometry and be designed to optimal design standards where possible. All alternatives include similar access management strategies, including the realignment of Roberts Road/Coburg Industrial Way and the implementation of access management spacing along Pearl/Van Duyn consistent with the interchange area and appropriate road functional classification.			
Safety performance—geometry	High	High	High
Access management	High <sup>a</sup>	High <sup>a</sup>	High <sup>a</sup>
Design Standards	Medium	Medium	Medium
<b>Mobility:</b> Alternatives B and C are anticipated to best improve freight movement through enhancing operations on the I-5 mainline and at the interchange. All alternatives are anticipated to incorporate pedestrian and bicycle facilities into the final design. Improved traffic operation and nonmotorized facilities enhance mobility for transit vehicles and the transportation disadvantaged population.			
Freight Movement	Medium	High	High
Mobility for the Transportation Disadvantaged	Medium	High	High
Impact on nonmotorized facilities	High	High	High
<b>Land Use Impacts:</b> Alternative C is expected to have slightly more impact on existing business and residential land and accesses than Alternatives A or B, due to the need for more interchange footprint. Alternative B has slightly more impact on existing business and residential land and accesses than Alternative A. All alternatives are consistent with the Coburg Comprehensive Plan.			
Disruptions and Displacements	Medium	Medium	Low
Business and Residential Accesses	Medium	Medium	Low
Compatibility with Local Comprehensive Plans	High	High	High
Impact to resource-zoned land	High	High	High
<b>Environmental and Social Impacts:</b> All alternatives are expected to have similar environmental and social impacts.			
Impact on sensitive areas and endangered species	High	High	High
Impact to critical community resources	High	High	High
Noise	High	High	High
Required permits and approvals	High	High	High
Impact to low-income and minority populations	High	High	High
Economic Development	Medium	Medium	Low

TABLE 4-6  
Coburg/I-5 IAMP Alternatives and Evaluation Criteria Application

Criteria	Mitigation Alternatives		
	Alternative A: Diamond and Three-lane Bridge	Alternative B: Diamond and Four-lane Bridge	Alternative C: Loop Ramp and Four-lane Bridge
<b>Support for Implementation:</b> Alternatives A or B are the lowest cost and lowest impact options. However, Alternative A would not adequately accommodate future traffic conditions if a UGB expansion were to occur consistent with the RTP. For these reasons, ODOT, LCOG, and other entities may not support this option.			
Political Feasibility	Low	High	Medium
Multijurisdictional Coordination	Low	High	High
Constructability	High	High	High
<b>Cost-Effectiveness:</b> All alternatives would require the reconstruction of the Pearl Street/Van Duyn bridge over I-5. Alternative C would be slightly more costly because of the need for the loop ramp. Alternative B is more cost-effective than Alternative A, because it provides more flexibility and better operational performance for minimal additional cost.			
Regional Coordination	High	High	High
Cost-Effectiveness	Medium	High	Medium
<b>Summary:</b> Alternative B scores better than Alternatives A and C, with 20 Highs and 4 Mediums. Alternative A received 13 Highs, 9 Mediums and 2 Lows. Alternative C received 18 Highs, 3 Mediums, and 3 Lows. Alternative B has the optimal operational performance for the cost required for construction, and the greatest level of support for implementation.			

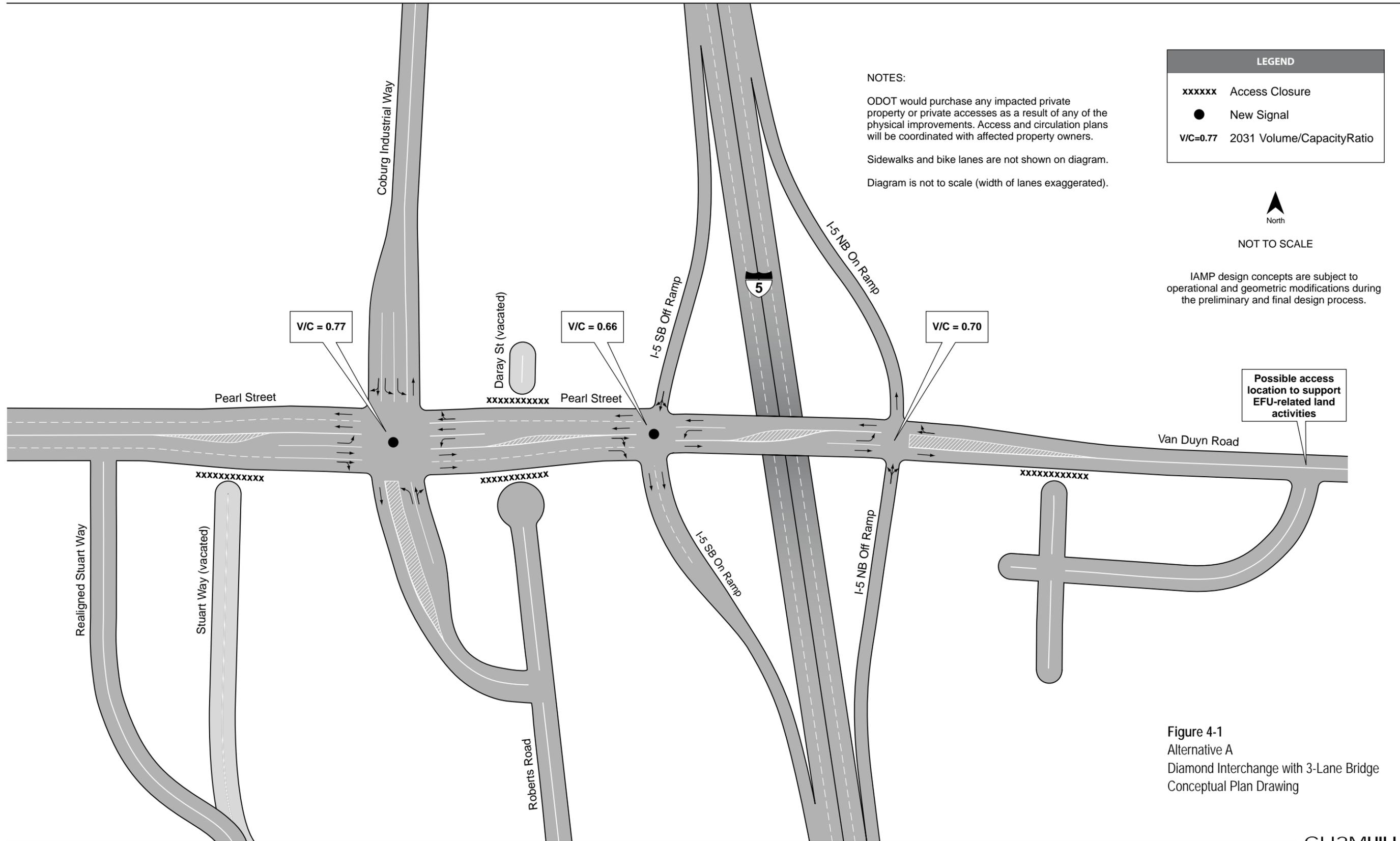
<sup>a</sup>Through policy strategies.

## 4.5 Recommendation

*Based on analysis of alternatives, the Recommended Alternative is Alternative B: Diamond Interchange with Four-lane Bridge.* Alternative B meets operational standards by year 2031, and includes access management measures and policy and implementation measures that will be adopted into local plans and codes.

Alternative B is preferable to Alternative A because it provides better operational performance and better operational channelization for the heavy northbound to westbound movement, for minimal additional cost. It also is more likely to have more multi-jurisdictional support for implementation, since it would offer the ability to accommodate growth related to future UGB expansion. It also offers flexibility to convert the interchange to a loop ramp design if deemed appropriate beyond year 2031. Alternative B is preferable to Alternative C because it provides a very similar level of operational performance for less cost than a loop ramp. This basic design concept will still be subject to operational and geometric modifications during the preliminary and final design process.





LEGEND	
xxxxxx	Access Closure
●	New Signal
V/C=0.77	2031 Volume/CapacityRatio



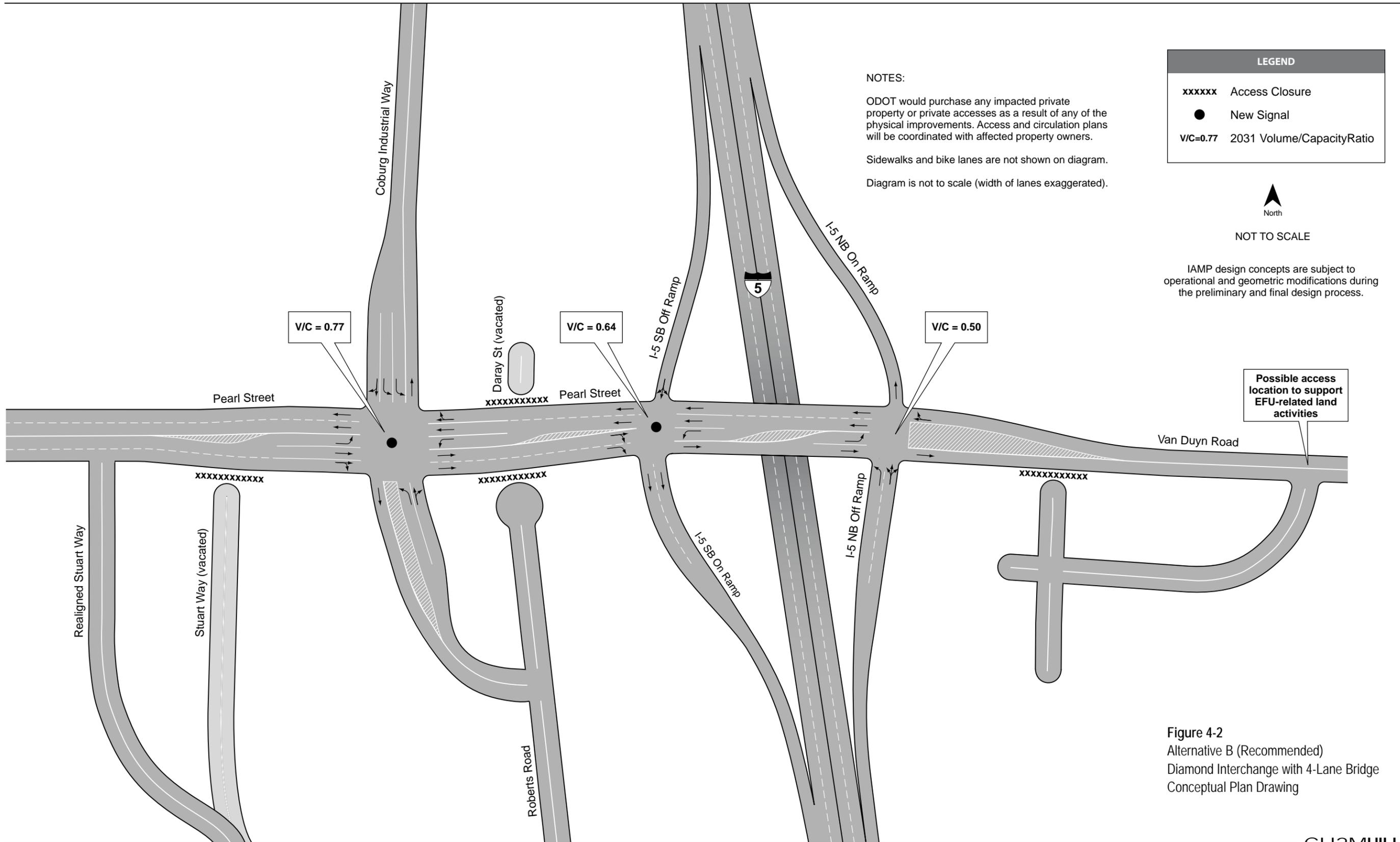
North

NOT TO SCALE

IAMP design concepts are subject to operational and geometric modifications during the preliminary and final design process.

Possible access location to support EFU-related land activities

Figure 4-1  
Alternative A  
Diamond Interchange with 3-Lane Bridge  
Conceptual Plan Drawing



LEGEND	
xxxxxx	Access Closure
●	New Signal
V/C=0.77	2031 Volume/CapacityRatio



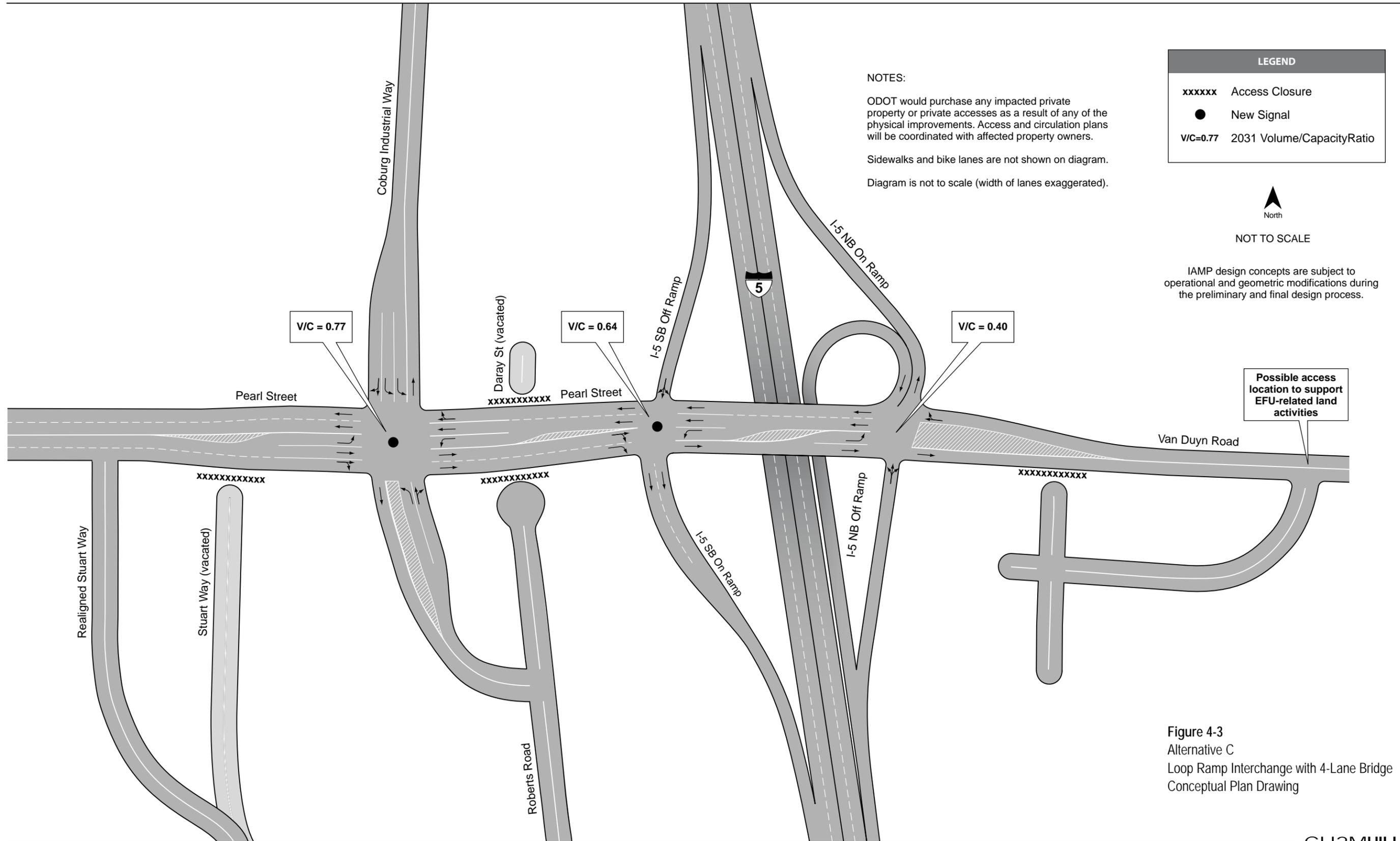
NOT TO SCALE

IAMP design concepts are subject to operational and geometric modifications during the preliminary and final design process.

NOTES:  
 ODOT would purchase any impacted private property or private accesses as a result of any of the physical improvements. Access and circulation plans will be coordinated with affected property owners.  
 Sidewalks and bike lanes are not shown on diagram.  
 Diagram is not to scale (width of lanes exaggerated).

Possible access location to support EFU-related land activities

Figure 4-2  
 Alternative B (Recommended)  
 Diamond Interchange with 4-Lane Bridge  
 Conceptual Plan Drawing



**NOTES:**

ODOT would purchase any impacted private property or private accesses as a result of any of the physical improvements. Access and circulation plans will be coordinated with affected property owners.

Sidewalks and bike lanes are not shown on diagram.

Diagram is not to scale (width of lanes exaggerated).

LEGEND	
xxxxxxx	Access Closure
●	New Signal
V/C=0.77	2031 Volume/CapacityRatio



NOT TO SCALE

IAMP design concepts are subject to operational and geometric modifications during the preliminary and final design process.

Possible access location to support EFU-related land activities

**Figure 4-3**  
Alternative C  
Loop Ramp Interchange with 4-Lane Bridge  
Conceptual Plan Drawing



## SECTION 5

# Recommended Alternative—Operational, Physical and Access Improvements

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This section of the IAMP outlines the operational, physical, and access management recommendations included as part of the Recommended Alternative. Based on an analysis of alternatives, the Recommended Alternative includes a diamond interchange with a four-lane bridge. The Recommended Alternative includes operational and physical improvements, access management plans, and policy and code implementation recommendations.

## 5.1 Recommended Alternative and Findings

### 5.1.1 Recommended Alternative Overview

The recommended alternative package consists of:

- Operational and physical improvements
- Access management plans
- Policy and code implementation recommendations

Section 5 of this IAMP focuses on the operational, physical, and access recommendations. The Recommended Alternative includes reconstruction of a diamond interchange with a four-lane bridge. Figure 5-1 depicts the Recommended Alternative physical and access improvements.<sup>12</sup>

A four-lane bridge is preferred because it will better accommodate the heavy north to west movement from the I-5 Northbound off-ramp, in addition to extending the life of the bridge structure past 2031 for minimal additional cost. A four-lane bridge would also provide future flexibility for the addition of a loop ramp if determined necessary at some point after the 2031 planning horizon.

The Recommended Alternative package is generally consistent with the Preferred Concept outlined in the Refinement Plan, except for increases in bridge and ramp capacity to address growth assumptions in the *Coburg Comprehensive Plan*, increases in capacity at the new Coburg Industrial Way/Roberts Road/Pearl Street intersection, and the inclusion of comprehensive access and policy measures. The access and policy and implementation measures are intended to meet or exceed the OHP access spacing standards for interchanges (or, at a minimum move closer to meeting these standards if existing constraints prevent fully achieving them) and outline requirements for mitigation when developments are projected to create more traffic than is planned for in the *Coburg Comprehensive Plan*.

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<sup>12</sup> The design team refined the southbound approach of Coburg Industrial Way at Pearl Street (three lanes under Alternative B and two lanes under the Recommended Alternative) to maximize the trade-off between project cost and operational performance. This revision is not expected to significantly change future operational performance of Pearl Street.

The Recommended Alternative will be designed consistent with applicable ODOT HDM and interchange design guide standards, as well as applicable Lane County or City of Coburg geometric design standards.

The Recommended Alternative is based on the employment and population assumptions included in the *Coburg Comprehensive Plan*. Table 5-1 outlines the employment and population assumptions used to create 2031 traffic forecasts.

TABLE 5-1  
Comprehensive Plan Land Use Assumptions—Year 2025

	Population	New and Total Dwelling Units	Employment
Coburg Comprehensive Plan	1,819	New: 322 Total: 896	4,672

### 5.1.2 Goal and Objectives Findings

This subsection describes how the Recommended Alternative is consistent with the goal and objectives set forth in this IAMP (see Section 1.5).

#### Goal

*Reflect collaborative work with ODOT, Lane County, and the City of Coburg and outline recommendations for transportation improvements and policy and implementation measures that will maximize the operation of the interchange and accommodate future planned growth in the interchange management area.*

**Response:** This IAMP was a collaborative effort, including ODOT, Lane County, and the City of Coburg. The Project Management Team (PMT) included members from all three jurisdictions/agencies. The Recommended Alternative includes recommendations for both transportation improvements and policy measures intended to accommodate growth as provided for in the *Coburg Comprehensive Plan*.

#### Objectives

- *Protect long-term safety and operations of the interstate and local road network*

**Response:** Recommendations included as part of the Recommended Alternative are intended to protect long-term safety and operations. Recommendations include interchange and local intersection modifications, which will increase available capacity. Pedestrian, bicycle, transit, and TDM components of the Recommended Alternative also address improvement of operations. Operational analysis shows that the Recommended Alternative will meet ODOT and Lane County operational standards in year 2031. Recommendations also include access management actions and policies, which work to improve operations and safety due to a reduction in potential conflict points.

- *Build on the work in the Refinement Plan as adopted in the Coburg TSP*

**Response:** This IAMP looked to the Preferred Concept outlined in the Refinement Plan as a starting point for interchange area improvement alternatives. The Recommended Alternative is generally consistent with the Preferred Concept outlined in the

Refinement Plan (a diamond interchange), but also includes increases in interchange and local intersection capacity and the inclusion of comprehensive access and policy measures.

- *Accommodate 2031 planned growth for the Coburg/I-5 interchange management area as outlined in the Coburg Comprehensive Plan*

**Response:** The Recommended Alternative accommodates 2031 planned growth through interchange modifications, modifications to the local street system, enhanced pedestrian and bicycle facilities, access management plans, and policy and implementation measures. Operational analysis shows that the Recommended Alternative will accommodate traffic levels at appropriate ODOT and Lane County standards by year 2031.

- *Preserve public investments in the Coburg/I-5 interchange and adjacent transportation network*

**Response:** The Recommended Alternative will meet ODOT design standards, will achieve appropriate ODOT and Lane County operational standards for year 2031 traffic levels, and will move toward compliance with ODOT access management standards. The alternative includes policy and implementation measures that consider future land development to protect the operations of a newly reconstructed interchange. It also includes a four-lane bridge, which will offer better management/channelization of anticipated traffic, as well as allowing for future interchange modifications (e.g., addition of a loop ramp) if deemed necessary beyond year 2031.

- *Plan for future management of the interchange and adjacent land uses*

**Response:** The Recommended Alternative includes recommendations that relate to future development of adjacent land uses. When land develops or redevelops within the interchange management area, development applications will trigger access and traffic analysis requirements.

- *Work with Coburg and Lane County to develop a plan for road network, right-of-way, access, and land within the interchange management area*

**Response:** The Recommended Alternative represents a collaborative effort among ODOT, Lane County, and the City of Coburg to provide road, access, and land plans within the interchange management area. The Recommended Alternative includes an access management plan, and also includes policies related to the development of a local grid street system west of I-5 as land develops.

- *Provide recommendations for enhancement of the pedestrian and bicycle system*

**Response:** The Recommended Alternative includes an interchange bridge with pedestrian and bicycle facilities that extend multimodal system connectivity.

- *Provide recommendations that do not preclude expanded use of transit and other transportation measures such as transportation demand management (TDM)*

**Response:** The Recommended Alternative does not preclude transit or TDM, in that it provides improved nonmotorized access to transit stops and includes recommendations for enhanced TDM and signal optimization.

- *Provide for OTC adoption of a plan so existing funds can be accessed for interchange reconstruction*

**Response:** The Recommended Alternative is the culmination of the IAMP and project planning process, and sets the stage for next steps for interchange design and reconstruction. Adoption of the IAMP by the OTC, City, and County fulfills this requirement.

- *Ensure integration of land use and transportation planning*

**Response:** The Recommended Alternative includes both operational and physical transportation improvements and recommendations related to policies and code affecting land uses. The Recommended Alternative requires managed population and employment growth within the study area, and requires mitigation for trip generation higher than planned growth.

- *Provide certainty for property and business owners and local governments*

**Response:** The Recommended Alternative defines physical improvements over the short-, medium-, and long-term planning horizons. The Recommended Alternative also identifies conditions and/or associated actions/opportunities that cause such improvements to occur. Adoption of the IAMP will provide a foundation for public and private interests and certainty for the development application process in the IAMP management area.

## 5.2 Recommended Alternative—Operational and Physical Improvements

In its current configuration, the Coburg/I-5 interchange would not support traffic anticipated by 2031 due to growth in employment and population. Without improvement, intersections would be congested, and vehicles would be anticipated to back up onto the I-5 mainline.

The implementation of the Recommended Alternative would result in acceptable operations, safety conditions, and design conditions by year 2031 within the Coburg /I-5 interchange management area.

The Recommended Alternative infrastructure improvement includes the following operational and physical improvements and associated actions to be managed by ODOT, the City of Coburg, and Lane County.<sup>13</sup> Jurisdictions in parentheses indicate the lead responsibility for each action.

### 5.2.1 Short-Term Operational/Physical Improvements (0 to 7 years)

- I-5 Southbound ramps: Install a new exclusive eastbound right-turn lane on Pearl Street and southbound on-ramp receiving lane (ODOT).

<sup>13</sup> ODOT would purchase any impacted private property or private accesses as a result of any of the physical improvements. Access and circulation plans will be coordinated with affected property owners.

- Realign Roberts Road to meet the existing signalized Coburg Industrial Way intersection. The newly realigned Roberts Road would be constructed to road standards that accommodate freight vehicles (ODOT).
- Add a new connection between the aligned Roberts Road and original Roberts Road (ODOT).
- Purchase access control and do not allow any new private accesses west of I-5 along Pearl Street from the interchange ramp to a point 1,000 feet west of Coburg Industrial Way. In the interim, allow the Stuart Way driveway access at Pearl Street. Upon redevelopment of the Truck and Travel site (located east and west of Stuart Way), realign Stuart Way west of its current location to improve spacing with Coburg Industrial Way.
- Close access to the original Roberts Road at Pearl Street. This closure would only occur after or at the same time as the opening of the new Roberts Road/Coburg Industrial Way intersection to ensure continuous business access. A cul-de-sac will be constructed at the north termination of the original Roberts road that is navigable for WB-67 trucks (ODOT).
- Install a northbound left-turn pocket on Coburg Industrial Way at Pearl Street (ODOT).
- Coordinate traffic signal operations along Pearl Street; ensure signal optimization (ODOT/Lane County).
- Purchase access control and do not allow any new private access east of I-5 along Van Duyn Road from the interchange ramp terminal to Hereford Road and do not allow any full accesses within 1,320 feet of the interchange ramp terminal (ODOT). In the interim, allow the properties within the Urban Growth Boundary (UGB) to continue to access Van Duyn directly from within the UGB. Upon redevelopment of one or more of these properties within the current UGB, implement changes to this access as needed to address safety issues or seek development and use of the access road right-of-way purchased by ODOT during the initial phase of the interchange project if it has not already been developed as part of a subsequent phase of the interchange project (ODOT).
- Purchase right-of-way needed to construct an access road from the areas with the Coburg UGB east of I-5 to a point approximately 1320' east of the northbound ramp terminals (eventual construction of this access road will require an exception to Goal 3 of the statewide planning goals – if an exception is not granted by Lane County, ODOT will need to develop an alternative access approach to address this issue) (ODOT). See Appendix L for the justification for a goal exception.
- Work with Lane Transit District to expand Bus Rapid Transit to Coburg (City of Coburg).
- Market Lane Transit District's Group Pass Program to employers, and promote carpool and vanpool services (City of Coburg).
- As Coburg develops, monitor the need for a park-and-ride (City of Coburg).

## 5.2.2 Long-Term Operational/Physical Improvements (8+ years)

- Signalize the I-5 southbound ramp terminals by 2031 or sooner if signal warrants are met and the signal is approved by the State Traffic Engineer (ODOT).
- Reconstruct the Coburg/I-5 interchange bridge structure to four lanes, with full standard pedestrian and bicycle facilities and adequate height to meet the appropriate standard. The bridge is to include two westbound lanes with a turn pocket leading to the I-5 southbound on-ramp, one eastbound through lane, and one eastbound left-turn lane leading to the I-5 northbound on-ramp. ODOT will work with property owners to purchase property impacted due to the interchange reconstruction. The bridge structure will need to be lengthened to reduce the approach slope to meet current design standards. The bridge length will also need to factor in future potential widening of I-5. This improvement could take place earlier if adequate funding is secured for construction (ODOT).
- Consolidate all accesses on the southern side of Van Duyn Road to a point at least 1,320 feet from the north-bound ramp terminal intersection. Close accesses less than 1,320 feet from this location and construct an alternate access road. This road may be constructed by ODOT and maintained as a public road by Lane County or the City of Coburg, or it may be constructed privately in conjunction with redevelopment of properties within the Coburg UGB east of I-5, depending on the timing and availability of funds to construct future phases of the interchange project (eventual construction of this access road will require an exception to Goal 3 of the statewide planning goals – if an exception is not granted by Lane County, ODOT will need to develop an alternative access approach to provide access to the urban properties east of I-5) (ODOT, other responsible parties). See Appendix L for the justification for a goal exception.
- Implement local circulation improvements consistent with the Coburg TSP that provide alternative circulation and access for the land north of Pearl Street and west of I-5 within the IAMP study area (City of Coburg).
- Design and construct the northern and southern connection alignments (extending Coburg Industrial Way north and Roberts Road south) as depicted in Map 16 of the Coburg TSP (City of Coburg).<sup>14</sup>

## 5.3 Recommended Alternative—Access Management Plan

Access management and access spacing are important for traffic operations and safety. Access management is intended to reduce conflict points in order to improve mobility and minimize potential for collisions. As part of the Coburg/I-5 IAMP, access locations and public street connections were examined in order to meet the goals and objectives of the IAMP.

The Access Management Plan identifies access management actions that move access spacing along Pearl Street and Van Duyn Road toward access management standards as

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<sup>14</sup> This improvement is conceptually identified in the City of Coburg TSP. Because it would be located within the Coburg/I-5 interchange management area, it is included as a physical/operational improvement.

defined in the OHP. For the Coburg/I-5 IAMP, the minimum spacing standard is 1,320 feet from the I-5 ramp terminal intersection for placement of the next full access road or driveway.<sup>15</sup> This standard is based on research regarding optimal safety and operations near interchanges. As discussed in Section 2, several public and private accesses are currently located within 1,320 feet of the ramp intersections on both sides of the interchange.

The Access Management Plan identifies driveways that will ultimately need to be relocated, consolidated, or closed to achieve the safety and mobility objectives of the state's access management standards. Relocation, consolidation, or closure of driveways will be paired with enhancement of the local street circulation system (e.g., frontage roads).

Figure 5-1 depicts access recommendations in the interchange management area. Descriptions of the recommendations follow.

### 5.3.1 Van Duyn Road (East of I-5)

- Purchase access control and do not allow any new private access east of I-5 along Van Duyn Road from the interchange ramp terminal to Hereford Road and do not allow any full accesses within 1,320 feet of the interchange ramp terminal. In the interim, allow the properties within the Urban Growth Boundary (UGB) to continue to access Van Duyn directly from within the UGB. Upon redevelopment of one or more of these properties within the current UGB, implement changes to this access as needed to address safety issues or seek development and use of the access road right-of-way purchased by ODOT during the initial phase of the interchange project if it has not already been developed as part of a subsequent phase of the interchange project.
- Consolidate all accesses on the southern side of Van Duyn Road to a point at least 1,320 feet from the north-bound ramp terminal intersection. Close accesses less than 1,320 feet from this location and construct an alternate access road. This road may be constructed by ODOT and maintained as a public road by Lane County or the City of Coburg, or it may be constructed privately in conjunction with redevelopment of properties within the Coburg UGB east of I-5, depending on the timing and availability of funds to construct future phases of the interchange project. (eventual construction of this access road will require an exception to Goal 3 of the statewide planning goals – if an exception is not granted by Lane County, ODOT will need to develop an alternative access approach to provide access to the urban properties east of I-5).
- If land uses change in the northeast quadrant of the interchange management area, consolidate all accesses on the northern side of the road to a public road approach that aligns opposite the consolidated approach south of Van Duyn Road.

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<sup>15</sup> Per the Oregon Highway Plan, right-in/right-out accesses are permissible 750 feet from an interchange ramp terminal.

### 5.3.2 Pearl Street (West of I-5)

- Purchase access control and do not allow any new private accesses west of I-5 along Pearl Street from the interchange ramp to a point 1000 feet west of Coburg Industrial Way. In the interim, allow the Stuart Way driveway access at Pearl Street. Upon redevelopment of the Truck and Travel site (located east and west of Stuart Way), realign Stuart Way west of its current location to improve spacing with Coburg Industrial Way.
- Realign Roberts Road with the signalized Coburg Industrial Way.
- Construct an east-west connection between the realigned Roberts Road and original Roberts Road.
- Close access to Pearl Street from the original Roberts Road.
- Develop local circulation options that provide private properties north and south of Pearl Street the opportunity to access the signalized intersection of Pearl Street and the realigned Roberts Road/Coburg Industrial Way. Specific internal access circulation will be developed by the City of Coburg and individual property owners.
- Close access to Pearl Street from Daray Street. Properties will be accessed via frontage or backage roads (from Coburg Industrial Way/realigned Roberts Road).
- Develop a local road system consistent with the current Coburg TSP. The local grid system developed will connect directly onto Pearl Street within the study area.

### 5.3.3 Access Management Deviations

When implemented, the IAMP Access Management Plan reduces the number of approaches to Pearl Street/Van Duyn Road by a total of 11 (including private drives; four of the accesses are public streets that are either realigned or redirected).

*Under OAR 734-051-0135(5) the ODOT Region Access Management Engineer “shall require any deviation for an approach located in an interchange access management area as defined in the Oregon Highway Plan, to be evaluated over a 20-year horizon from the date of application and may approve a deviation for an approach located in an interchange access management area if:… (b) The approach is consistent with an access management plan for an interchange that includes plans to combine or remove approaches resulting in a net reduction of approaches to the highway.”*

Deviations identified in this IAMP are consistent with this statute.

Table 5-2 addresses all approach locations where access deviations will be required and provides a rationale for why the deviations should be granted. Figure 5-2 shows the locations of these accesses and the approach number that corresponds to Table 5-2.

TABLE 5-2  
IAMP Access Deviations

Approach #	Tax Lots Served or Road Name	Deviation Request Rationale
1	Stuart Way/Pearl Street	The intersection of Stuart Way and Pearl Street lies within 1,320 feet from the interchange ramp. The City of Coburg has permitted Stuart Way to be vacated. In the interim, this access shall be allowed to stay open for access to the Truck 'n Travel site (the portion of the Anderson property east of Stuart Way). Upon redevelopment of the portion of the Anderson property west of Stuart Way (tax lot 2800), the Stuart Way access reservation shall be required by ODOT permit to be relocated to a point somewhere between the existing Stuart Way intersection and the far west side of tax lot 2800. The purpose of this relocation is to provide improved access spacing between the relocated (formally Stuart Way) access point and the intersection of Pearl Street and Coburg Industrial Way/Roberts Road. The precise location of the relocated access point will be determined through the City's site plan review process and the traffic analysis required by ODOT's permit process. Upon redevelopment of tax lot 2800 or the Truck 'n Travel Site, the present location of Stuart Way will be closed and Truck 'n Travel will begin using the relocated Stuart Way across tax lot 2800.
2	160332402900	As part of the Recommended Alternative recommended in this IAMP, Roberts Road will be closed at Pearl Street and realigned with Coburg Industrial Way. Once the Roberts Road realignment is complete, this private access will be closed, and access to this property will occur via the realigned Roberts Road. In the interim, this access should be allowed to stay open for property access. Internal local circulation will be discussed directly between ODOT and property owners.
3	Coburg Industrial Way/ Realigned Roberts Road at Pearl Street	The intersection of Coburg Industrial Way and Pearl Street lies within 1,320 feet from the interchange ramp. This location will be where the realignment of Roberts Road ties in to Pearl Street, in order to be able to close Roberts Road and private driveways to the south of Pearl Street. This location was identified in the Refinement Plan after a review of alternatives and extensive public process. As part of this IAMP, Roberts Road will be closed at Pearl Street and realigned to this location south of Coburg Industrial Way, thereby moving toward ODOT access management standards. Coburg Industrial Way is identified in the Coburg TSP and Lane County TSP as an integral piece of Coburg's circulation system.
4	1603330000501	As part of the Recommended Alternative recommended in this IAMP, Roberts Road will be closed at Pearl Street and realigned with Coburg Industrial Way. Once the Roberts Road realignment is complete, this private access will be closed, and access to this property will occur via the realigned Roberts Road. In the interim, this access should be allowed to stay open for property access. Internal local circulation will be discussed directly between ODOT and property owners.
5	1603330000501	As part of the Recommended Alternative recommended in this IAMP, Roberts Road will be closed at Pearl Street and realigned with Coburg Industrial Way. Once the Roberts Road realignment is complete, this private access will be closed, and access to this property will occur via the realigned Roberts Road. In the interim, this access should be allowed to stay open for property access. Internal local circulation will be discussed directly between ODOT and property owners.

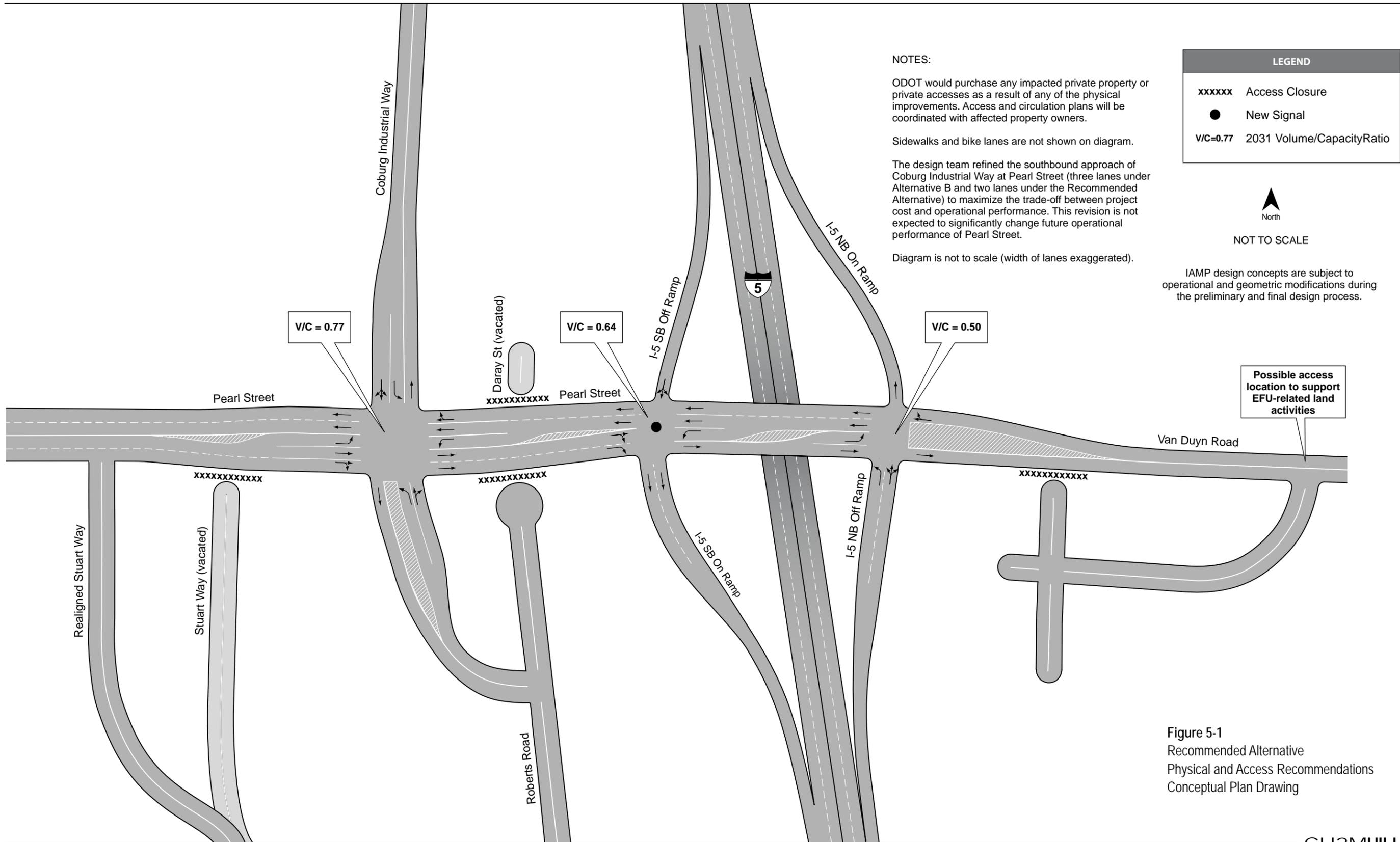
TABLE 5-2  
IAMP Access Deviations

Approach #	Tax Lots Served or Road Name	Deviation Request Rationale
6	1603330000502 1603330000500	As part of the Recommended Alternative recommended in this IAMP, Roberts Road will be closed at Pearl Street and realigned with Coburg Industrial Way. Once the Roberts Road realignment is complete, this private access will be closed, and access to this property will occur via the realigned Roberts Road. In the interim, this access should be allowed to stay open for property access. Internal local circulation will be discussed directly between ODOT and property owners.
7	1603330000102	As part of this IAMP, once land in the northwest quadrant of the IAMP study area develops or redevelops, the land use application will trigger the development and implementation of a local circulation plan that connects to Pearl Street via Coburg Industrial Way. Direct access to Pearl Street will not be permitted within the IAMP interchange management area. Because this access serves an existing business, and because currently there are no reasonable alternative accesses to this property, a deviation should be allowed to allow access only until development or redevelopment occurs on adjacent property. Internal local circulation will be discussed directly between ODOT and property owners.
8	1603330000102	As part of this IAMP, once land in the northwest quadrant of the IAMP study area develops or redevelops, the land use application will trigger the development and implementation of a local circulation plan that connects to Pearl Street via Coburg Industrial Way. Direct access to Pearl Street will not be permitted within the IAMP interchange management area. Because this access serves an existing business, and because currently there are no reasonable alternative accesses to this property, a deviation should be allowed to allow access only until development or redevelopment occurs on adjacent property. Internal local circulation will be discussed directly between ODOT and property owners.
9	Daray Street	As part of this IAMP, once land in the northwest quadrant of the IAMP study area develops or redevelops, the land use application will trigger the development and implementation of a local circulation plan that connects to Pearl Street via Coburg Industrial Way. Direct access to Pearl Street will not be permitted within the IAMP interchange management area. Because this access serves an existing business, and because currently there are no reasonable alternative accesses to this property, a deviation should be allowed to allow access only until development or redevelopment occurs on adjacent property. Internal local circulation will be discussed directly between ODOT and property owners.
10	1603330000200	All accesses east of I-5 along Van Duyn Road will be rerouted to a new intersection 1,320' east of the interchange ramp terminal that will connect with a frontage road. Because this access serves an existing purpose, and because currently there are no reasonable alternative accesses to this property, a deviation should be allowed to allow access in the meantime.
11	1603330000207	All accesses east of I-5 along Van Duyn Road will be rerouted to a new intersection 1,320' east of the interchange ramp terminal that will connect with a frontage road. Because this access serves an existing purpose, and because currently there are no reasonable alternative accesses to this property, a deviation should be allowed to allow access in the meantime.
12	1603330000206	All accesses east of I-5 along Van Duyn Road will be rerouted to a new intersection 1,320' east of the interchange ramp terminal that will connect with a frontage road. Because this access serves an existing purpose, and because currently there are no reasonable alternative accesses to this property, a deviation should be allowed to allow access in the meantime.

TABLE 5-2  
IAMP Access Deviations

<b>Approach #</b>	<b>Tax Lots Served or Road Name</b>	<b>Deviation Request Rationale</b>
13	1603330000101	All accesses east of I-5 along Van Duyn Road will be rerouted to a new intersection 1,320' east of the interchange ramp terminal that will connect with a frontage road. Because this access serves an existing purpose, and because currently there are no reasonable alternative accesses to this property, a deviation should be allowed to allow access in the meantime.





**NOTES:**

ODOT would purchase any impacted private property or private accesses as a result of any of the physical improvements. Access and circulation plans will be coordinated with affected property owners.

Sidewalks and bike lanes are not shown on diagram.

The design team refined the southbound approach of Coburg Industrial Way at Pearl Street (three lanes under Alternative B and two lanes under the Recommended Alternative) to maximize the trade-off between project cost and operational performance. This revision is not expected to significantly change future operational performance of Pearl Street.

Diagram is not to scale (width of lanes exaggerated).

LEGEND	
xxxxxxx	Access Closure
●	New Signal
V/C=0.77	2031 Volume/CapacityRatio

North  
 NOT TO SCALE

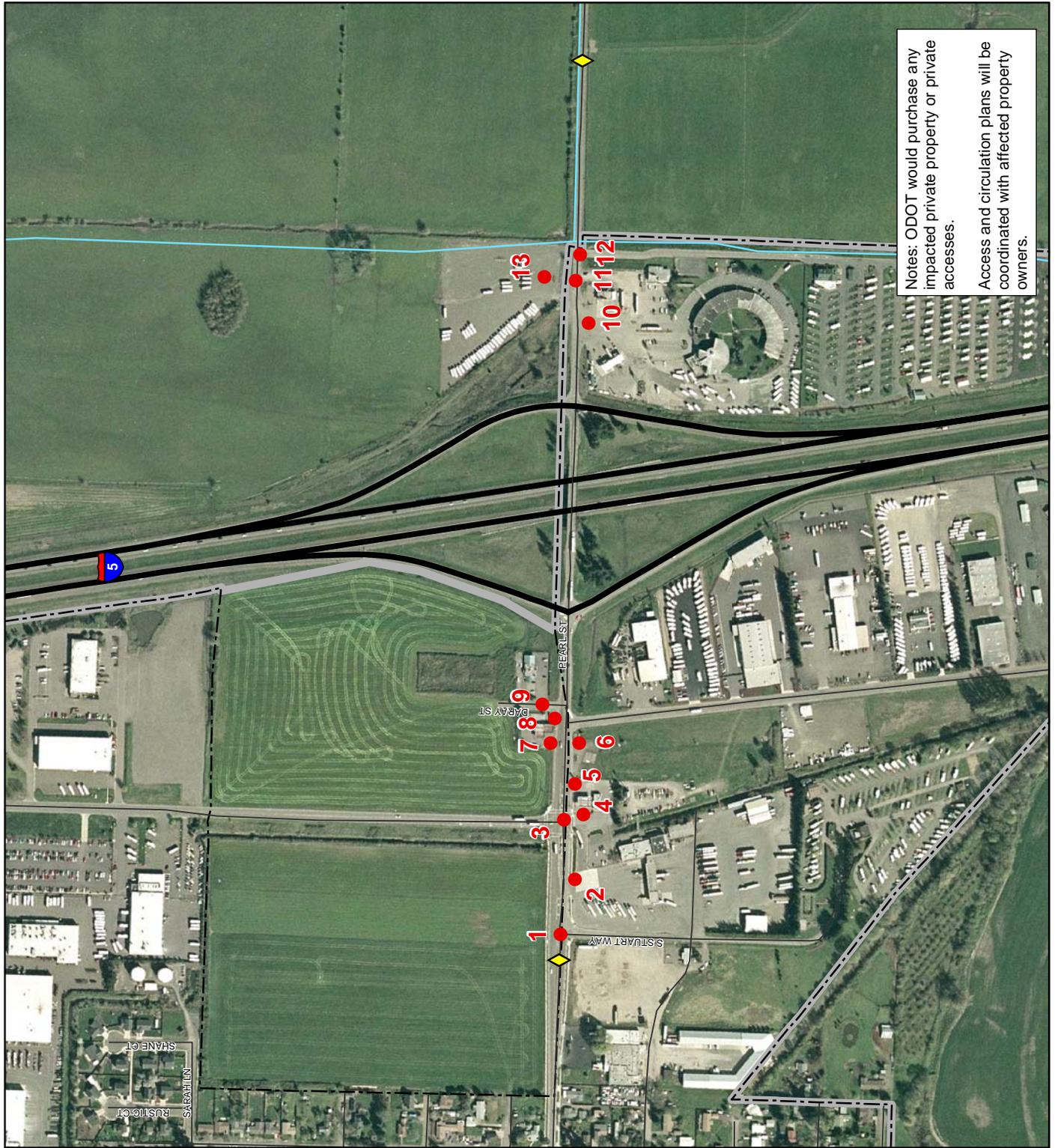
IAMP design concepts are subject to operational and geometric modifications during the preliminary and final design process.

Possible access location to support EFU-related land activities

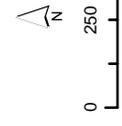
**Figure 5-1**  
 Recommended Alternative  
 Physical and Access Recommendations  
 Conceptual Plan Drawing

**Legend**

-  1,320' from existing ramp terminal
-  Access Deviation (number corresponds with Table 5-2)
-  Coburg City Limits
-  Urban Growth Boundary



Notes: ODOT would purchase any impacted private property or private accesses.  
 Access and circulation plans will be coordinated with affected property owners.



**Figure 5-2 Recommended Alternative Access Deviations Coburg/I-5 Interchange Area Management Plan**

## SECTION 6

# IAMP Recommended Alternative—Policies and Implementation Measures

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Adopting policies and other implementation measures are critical to protecting the Recommended Alternative infrastructure investments. IAMP Section 6 summarizes policies to be adopted by the City of Coburg, Lane County, and the OTC. IAMP Section 7 summarizes development code language to be adopted by the City of Coburg, Lane County, and the OTC. Section 8 summarizes the adoption process and the processes for monitoring and updating the IAMP.

## 6.1 Policy Framework

The following policy framework is to be adopted by the City of Coburg, Lane County, and the OTC.

### 6.1.1 IAMP Definition and Purpose

The City of Coburg (City), Lane County (County), and Oregon Department of Transportation (ODOT) recognize the importance of Interstate 5 in the movement of people and goods, and are committed to protecting the function of the Coburg/I-5 interchange (Milepost 199.15). The Coburg/I-5 Interchange Area Management Plan and Boundary is defined as the following:

*A City of Coburg Special District in the City of Coburg Comprehensive Plan map and a Lane County Combining (Overlay) zone in the Lane County Comprehensive Plan map within which ODOT will monitor and review development proposals and proposed land use changes and coordinate with the City and County to meet ODOT access safety spacing standards, mobility standards, and address other possible traffic impacts on the subject interchange, as appropriate.*

The Coburg/I-5 Interchange Area Management Plan (IAMP) is intended to (1) describe plans for operational, physical, and access improvements; and (2) anticipate and provide direction for the development of land inside the interchange management area in a manner that does not compromise the function or operation of the interchange.

### 6.1.2 IAMP Policies and Actions

The following policies and actions shall be adopted and implemented by ODOT (through this IAMP and development of the interchange improvement project), and Lane County and the City of Coburg (through amendments to their respective Transportation System Plans and Comprehensive Plans).

1. ODOT and the City of Coburg and Lane County establish the Coburg/I-5 Interchange Management Area overlay as depicted in Figure 6-1.

2. If full construction of the improvements described herein as the Recommended Alternative (Alternative B), and depicted in Figures 4-2 and 5-1, occur in advance of the City of Coburg expanding its urban growth boundary and updating its comprehensive plan and zoning to fully accommodate its regional population and employment forecasts<sup>16</sup>, in order to preserve capacity for future City of Coburg comprehensive plan updates, ODOT shall establish alternative mobility standards to protect any excess capacity provided by an improvement at the Coburg/I-5 interchange ramps as follows.

<b>Intersection</b>	Van Duyn Road/I-5 Northbound Ramps	Pearl Street/I-5 Southbound Ramps
<b>Alternative Mobility Standard</b>	0.55 V/C Ratio	0.65 V/C Ratio

3. If full construction of the improvements described herein as the Recommended Alternative (Alternative B) occur in advance of the City of Coburg expanding its urban growth boundary and updating its comprehensive plan and zoning to fully accommodate its adopted population and employment forecasts, in order to preserve capacity for future City of Coburg comprehensive plan updates, the City of Coburg shall establish an alternative mobility standard to protect any excess capacity provided by an improvement at the Pearl Street/Coburg Industrial Way intersection as follows.

<b>Intersection</b>	Pearl Street/Coburg Industrial Way
<b>Alternative Mobility Standard</b>	0.80 V/C Ratio

4. The City and County will coordinate with ODOT prior to amending their transportation system plans, proposing transportation improvements that could affect the function of the Coburg/I-5 Interchange Area, or proposing changes that are inconsistent with the IAMP.
5. If the City expands its urban growth boundary and updates its comprehensive plan and zoning to fully accommodate its adopted population and employment forecasts after construction of the interchange and local access and circulation improvements described herein as the Recommended Alternative (Alternative B), ODOT will work with the City and Lane County to amend the IAMP, as necessary, to recognize and support those updates. This amendment shall include adjustment of the Alternative Mobility Standards at the interchange ramps to accommodate the additional growth, but not to exceed the mobility standards in the OHP that apply to the Coburg/I-5 interchange (ramp terminal  $V/C \leq 0.8$ ). ODOT will also work with the County to modify the alternative mobility standards set for the Pearl Street/Coburg Industrial Way intersection.
6. If the City expands its urban growth boundary to fully accommodate the population and employment forecasts in the Regional Transportation Plan (RTP) before construction of the interchange and local access and circulation improvements described herein as the Recommended Alternative (Alternative B), the mobility standards in the OHP that apply to the Coburg/I-5 interchange (ramp terminal  $V/C \leq 0.8$ ) shall be applied to any

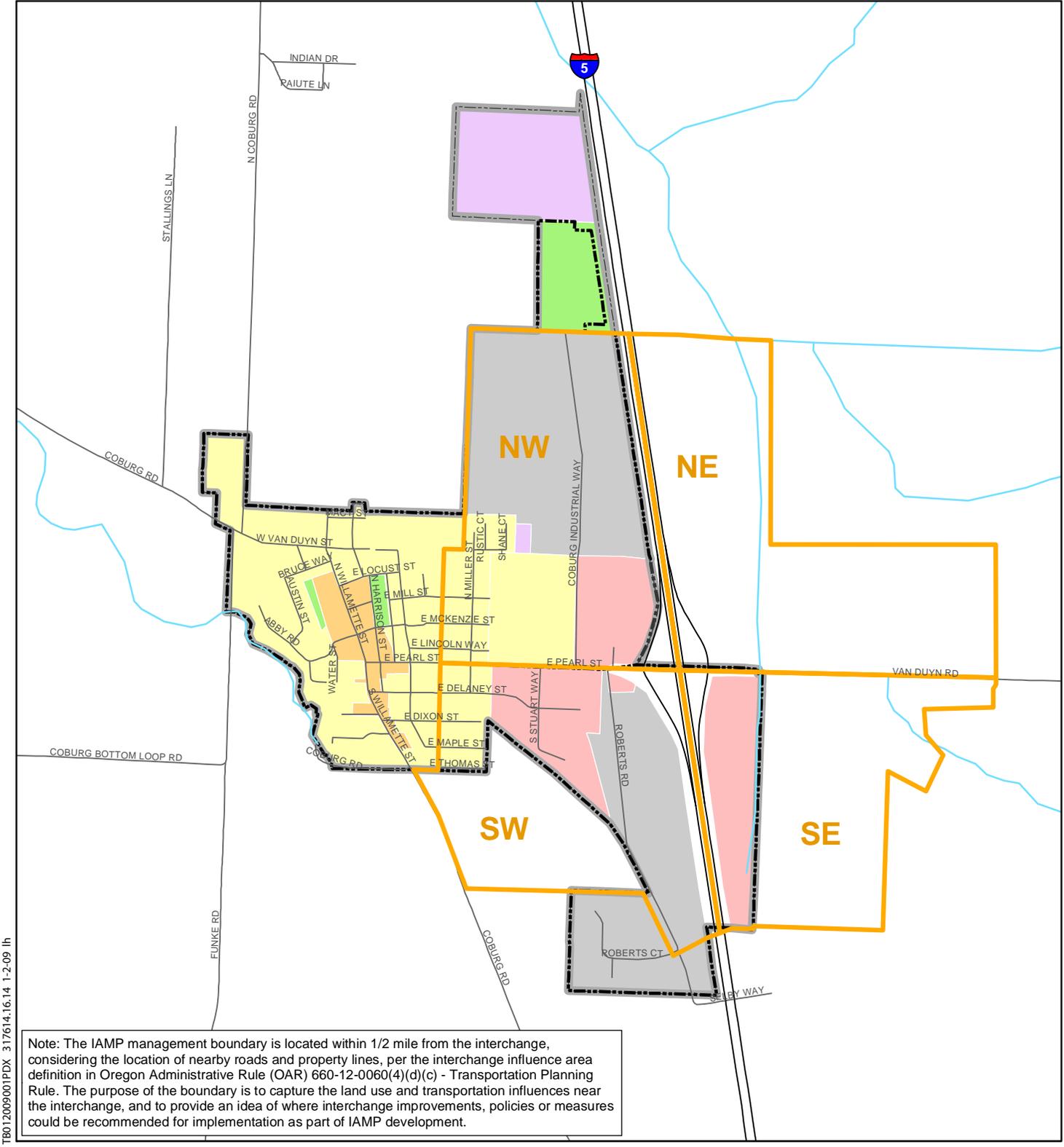
<sup>16</sup> As adopted for the federally designated Metropolitan Planning Organization planning area, by the Metropolitan Policy Committee (MPC).

subsequent comprehensive plan and zoning updates initiated by the City for the purposes of complying with Oregon Administrative Rule 660-012-0060.

7. The City and County shall coordinate with ODOT in the review of land use applications for areas within the interchange area management boundary. Land use actions within the interchange management area that may affect the performance of an interchange, such as zone changes, land development applications, and requests for new local access, will be consistent with the adopted IAMP. The City Planner shall include ODOT as an agency referral partner. Actions not consistent with the IAMP may only be approved by also amending the IAMP and related transportation system plans consistent with OAR 660-012-0050 and 0055.
8. The City of Coburg shall adopt traffic impact analysis (TIA) requirements as outlined in Section 7 for the interchange management area. Lane County developments are subject to Lane County TIA requirements, specified in Lane County's TSP, adopted in 2004.
9. In the event that Coburg seeks to expand its urban growth boundary east of I-5, the City of Coburg, Lane County, and ODOT shall reassess the viability of the IAMP local circulation recommendations and shall identify and ensure any new facilities needed to serve the resulting growth pattern are properly planned for, including an implementation strategy – this reassessment may include consideration of a new or enhanced I-5 bridge crossing to reduce potential travel demand on Pearl Street at the interchange ramp intersections.
10. Access spacing requirements shall be implemented consistent with and to meet or exceed the minimum standards in the 1999 Oregon Highway Plan, Policy 3C, as follows:
  - (a) When new approach roads are planned or constructed near the interchange, unless no alternative access exists, the nearest intersection on a crossroad shall be no closer than 1,320 feet from the interchange. Measurement is taken from the ramp intersection or the end of a free flow ramp terminal merge lane taper;
  - (b) Existing private accesses shall be closed along Pearl Street and Van Duyn Road where access control has been purchased by ODOT and when alternative access to public roads is provided.
  - (c) Deviations
    - i. Deviations shall be permitted as identified in Section 5.3.3 of this IAMP.
    - ii. Deviations not identified in Section 5.3.3 may be permitted for new access for farm and forestry equipment and associated farm uses, as defined in ORS 215.203, on lands zoned for exclusive farm use, and accepted forest practices on those lands that are within the interchange management area, but only when access meeting the standards in 10(a) above is unfeasible.
  - (d) Until such time as ODOT purchases access rights on any County Road or City Street that is designated for restricted access by this IAMP, any redevelopment of property within the IAMP area that would result in a greater number of average daily trips or an increase in large truck trips will require written approval from the Oregon Department of Transportation pursuant to an Intergovernmental Agreement to be

established between the City of Coburg, Lane County, and ODOT, and subject to the limits of applicable county or city codes. When ODOT has purchased access rights, any redevelopment of property within the IAMP area that would result in a greater number of average daily trips or an increase in large truck trips will be subject to the provision of ODOT's Access Management Administrative Rule (OAR 734-051).

- (e) ODOT shall purchase access control east of I-5 along both sides of Van Duyn Road from the interchange ramp terminal to Hereford Road and west of I-5 along both sides of Pearl Street from the interchange ramp terminal to a point 1,000 feet west of Coburg Industrial Way. New approaches shall be deed restricted to specific uses.
11. The City and County shall work with ODOT to implement the operational, physical, and access recommendations included in Section 5 of this IAMP.
  12. Work with Lane Transit District to expand bus rapid transit to Coburg (City of Coburg, Lane County).
  13. Market Lane Transit District's Group Pass Program to employers, and promote carpool and vanpool services (City of Coburg).
  14. As Coburg develops, monitor the need for a park-and-ride (City of Coburg, ODOT).



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**City of Coburg Comprehensive Plan Designations**

<span style="display: inline-block; width: 15px; height: 15px; background-color: yellow; border: 1px solid black;"></span> Traditional Residential	<span style="display: inline-block; width: 15px; height: 15px; border: 2px dashed black;"></span> Coburg City Limits
<span style="display: inline-block; width: 15px; height: 15px; background-color: lightgreen; border: 1px solid black;"></span> Park/Recreation	<span style="display: inline-block; width: 15px; height: 15px; border: 2px solid gray;"></span> Urban Growth Boundary
<span style="display: inline-block; width: 15px; height: 15px; background-color: orange; border: 1px solid black;"></span> Central Business District	<span style="display: inline-block; width: 15px; height: 15px; border: 3px solid orange;"></span> IAMP Management Area Boundary
<span style="display: inline-block; width: 15px; height: 15px; background-color: pink; border: 1px solid black;"></span> Highway Commercial	
<span style="display: inline-block; width: 15px; height: 15px; background-color: lightpurple; border: 1px solid black;"></span> Public Facility	
<span style="display: inline-block; width: 15px; height: 15px; background-color: lightgray; border: 1px solid black;"></span> Light Industrial	

**Figure 6-1 IAMP Management Area Quadrants  
Coburg/I-5 Interchange Area  
Management Plan**



# IAMP Recommended Alternative—Development Code

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Implementation measures are critical to protecting Recommended Alternative infrastructure investments. IAMP Section 7 summarizes development code language to be adopted by the City of Coburg and Lane County. Section 8 discusses the adoption process and the processes for monitoring and updating the IAMP.

## 7.1 Development Code Language

The following development code language applies to any land use proposal for lands within the Coburg/I-5 Interchange Management Area. Any development on unincorporated Lane County land within the interchange management area is subject to Lane County traffic impact analysis standards.

### 7.1.1 Traffic Impact Analysis

Traffic Impact Analysis Requirements for Land within the Interchange Management Area:

1. For purposes of this section, the IAMP Special District (City of Coburg) or Combining Zone (Lane County) area shall be as defined in Figure 6-1 of this IAMP and represented in the map and legal description of the Coburg Special District area and County Combining Zone area that are shown in Appendix M and included in each jurisdiction's development code.
2. Within the IAMP Special District for lands within the City of Coburg, for city streets, a traffic impact analysis (TIA) shall be required for all proposed development that will generate more than 100 AM or PM peak hour trips per day or 600 Average Daily Trips. Trip calculation shall be based upon *Trip Generation, 8th Edition (2008)* published by the Institute of Transportation Engineers.
3. For County Roads within the IAMP Combining Zone area, a TIA shall be required in accordance with Lane Code Chapter 15.697.
4. Within the IAMP Special District or Combining Zone Area, TIAs shall be prepared in accordance with ODOT's 2005 Development Review Guidelines. TIA adequacy shall be determined jointly by ODOT, the City of Coburg, and Lane County. If a conflict exists between ODOT Development Review Guidelines and applicable County or City requirements, ODOT Development Review Guidelines shall be applied by ODOT. Any required mitigation associated with the ODOT permitting process shall be determined by ODOT with participation by the City of Coburg and Lane County with regard to their respective requirements, and shall be consistent with the requirements in OAR 734-051 and OAR 660-012-0050. Any required mitigation associated with the local land use authority shall be by the City of Coburg and/or Lane County, as appropriate, with

regard to their respective requirements and with participation of ODOT, and shall be consistent with the requirements in OAR 734-051 and OAR 660-012-0050.

5. ODOT shall be responsible for any enforcement necessary to implement ODOT requirements through the ODOT permitting process that are not specified in Lane County or City of Coburg respective requirements.

## 7.2 Plan and Zone Map Changes

Coburg and Lane County shall amend their development codes as follows:

1. Coburg shall create a Plan Designation and corresponding new “special district” called the IAMP Overlay District to implement the provisions of this IAMP.
2. Lane County shall create a Plan Designation and corresponding “Combining Zone” called the Interchange Area Combining Zone to implement the provisions of this IAMP.
3. The Coburg and Lane County Plan Designation and Zoning Maps shall be amended to show the respective IAMP plan and zoning areas.

## SECTION 8

# IAMP Implementation, Monitoring, and Updates

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Section 8 discusses implementation authority and the processes for monitoring and updating the IAMP.

## 8.1 Implementation Authority

Development, adoption, and implementation of this IAMP are determined by regulatory authority. Local agency authority comes through state statutes, and city and county comprehensive plans and development codes. State of Oregon authority comes in the form of policy and administrative rules governing authority over federal and state systems, as granted through the following:

- State Agency Coordination Rule and Agreement (SAC 1990 – OAR 731-015): The purpose of this rule is to define what ODOT actions are land use actions and how ODOT will meet its responsibilities for coordinating these activities with the statewide land use planning program, other state agencies, and local government.
- Transportation Planning Rule (OAR 660-012): The TPR implements statewide planning goal 12 and is one of several statewide planning rules that promotes protection of the long-term livability of Oregon’s communities for future generations. The rule requires multi-modal transportation plans to be coordinated with land use plans. In satisfying the goal, state and local governments must satisfy requirements that are intended to promote development of a transportation system that is consistent with and supportive of planned land uses (and vice versa).
- Access Management Rule (OAR 734-051): The Access Management Rule, commonly referred to as Division 51, regulates the location, construction, maintenance, and use of approaches to state highway rights-of-way and properties under the jurisdiction of ODOT. These rules also govern the closure of existing approaches, spacing standards for approaches and driveways, medians, deviations from standards, appeal process, grants of access, and indentures of access.

## 8.2 Monitoring and Updates

It is the responsibility of ODOT to monitor this IAMP. An update to this IAMP should be completed within the next 5 to 10 years, given the amount of vacant land in the Coburg/I-5 interchange area.

This IAMP should be updated if/when any of the following occur:

- It is 5 to 10 years after the adoption of this IAMP.
- The *Coburg Comprehensive Plan* is amended, and such update affects the interchange.

- The *Lane County Comprehensive Plan* is amended, and such update affects the interchange.
- Development occurs in Coburg that is significantly different from the development assumptions in the *Coburg or Lane County Comprehensive Plans*.