I-5 Rogue Valley Corridor Plan

Technical Memorandum #1: Plan Definition and Background

Prepared for

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February 17, 2009

Plan Definition and Background

The *I-5 Rogue Valley Corridor Plan* (Corridor Plan) will assess existing and future transportation conditions along the Interstate 5 (I-5) and Oregon Highway 99 (OR 99) corridors from Interchange 11 south of Ashland to Interchange 35 north of Central Point (see Figure 1-1). The Corridor Plan will identify strategies and improvements to enhance transportation safety and capacity within the corridors.

The Corridor Plan builds upon *The I-5 State of the Interstate Report* (Interstate Report), released in 2000, which focused on identifying deficiencies along the entire Oregon portion of the I-5 corridor. The Interstate Report was a transportation conditions report that represented the first phase of a two-phase planning process. By defining problems that Oregon travelers may face, the Interstate Report was intended to serve two purposes: (1) to help Oregon Department of Transportation (ODOT) to focus its planning efforts on the most significant problems, and (2) to act as a catalyst for the public discussion about how best to invest in I-5 so that it can continue to be an asset to the people of Oregon and western North America. The next phase in planning for the future of I-5 is to determine which series of transportation improvement alternatives will best protect and improve travel conditions on I-5. Hence, the Corridor Plan represents the second phase, after the Interstate Report, for the urbanized Rogue Valley segment of the Oregon I-5 corridor.

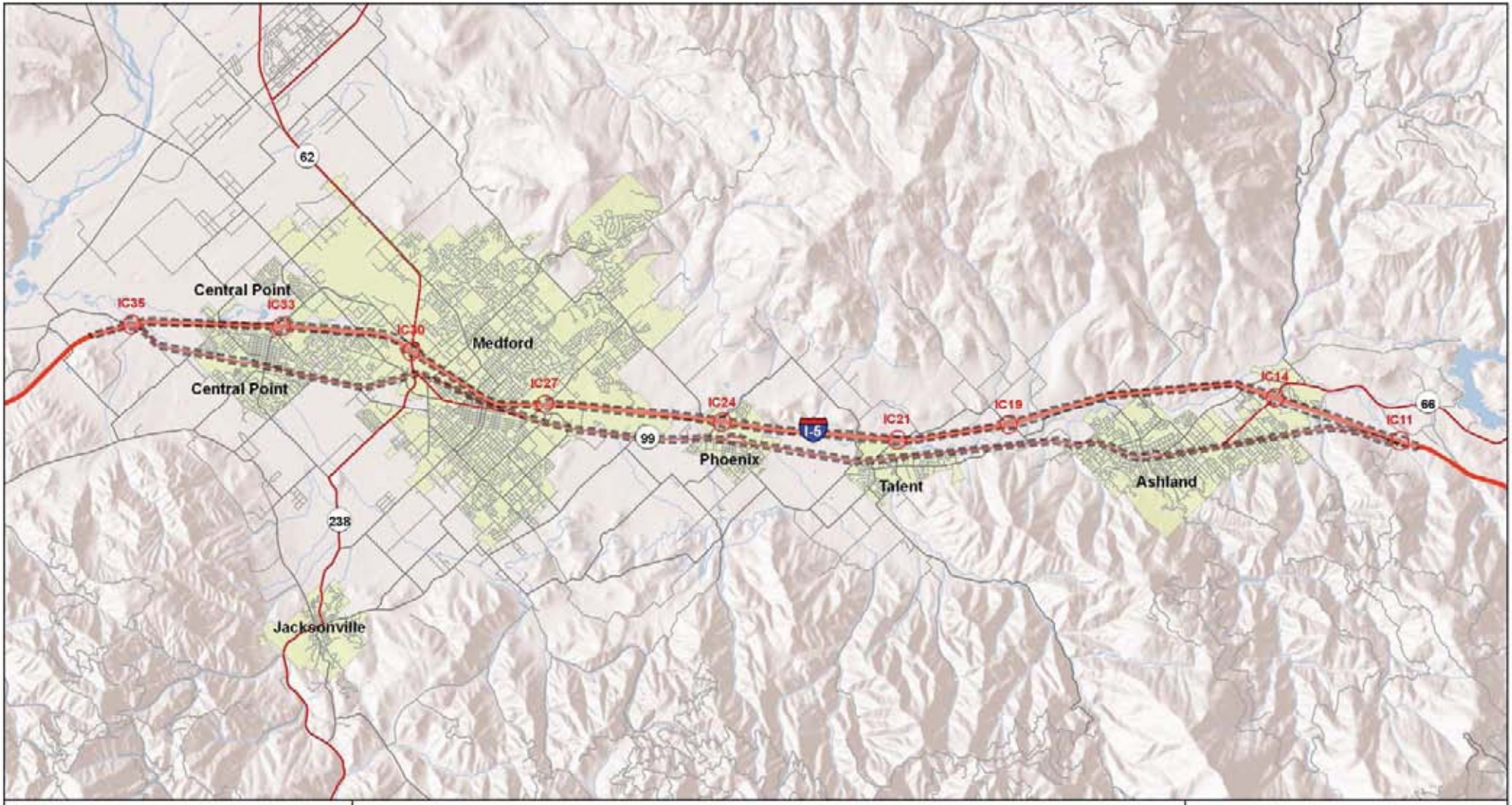
The Interstate Report and this subsequent Corridor Plan for the urbanized Rogue Valley region are intended to help ODOT meet the needs of a new century by identifying and addressing, in order of priority, the most pressing problems, region by region, along the I-5 corridor.

Background

I-5 is a continuous interstate corridor extending through the United States (U.S.) from Mexico to Canada. As Oregon's main north-south transportation facility, it is a critical link for moving commerce and people within the state and into and out of the neighboring states of California and Washington. The corridor connects all of the major population centers of the western seaboard, including San Diego, Santa Ana, Anaheim, Los Angeles, Sacramento, Portland, and Seattle. It also functions as an international thoroughfare by connecting to highways in Mexico and Canada.

Constructed between 30 and 40 years ago, the freeway was designed to provide enough capacity for a 20-year period of projected travel demand. Today, with many more users and few significant upgrades since its initial construction, I-5 has become quite congested, particularly in urban areas. In rural sections, the roadway is impacted by high truck and recreational vehicle traffic demands. With a quarter of the nation's exports and imports passing through the corridor annually, I-5 is the third most heavily traveled truck corridor in the U.S. Consequently, I-5 is also a federally designated Trade Corridor in recognition of its critical role in the nation's commerce.

The entire I-5 corridor is one of six interstate routes across the nation selected by the U.S. Department of Transportation for the "Corridors of the Future" program aimed at developing innovative national and regional approaches to reduce congestion and improve the efficiency of freight delivery. The corridor was selected for its potential to use public and private resources to reduce traffic congestion. The concepts include building new roads and adding lanes to existing



2 1 0 2 Miles

Source Data: Jackson County, ESRI, Oregon GEO

Legend

Proposed Planning Area

Interchange

I-5: Rogue Valley Corridor Study

Figure 1-1
Vicinity Map

January 2009

roads, building truck-only lanes and bypasses, and integrating real-time traffic technology such as lane management that can match available capacity on roads to changing traffic demands.

I-5 passes through many of Oregon's largest cities, where the freeway must serve interstate travel as well as interurban, commuter, and regional freight traffic—all vital functions for these local economies. As would be expected, the Portland, Salem, Eugene/Springfield, Roseburg, and Medford metropolitan areas are among the most heavily congested along the Oregon portion of the corridor. OR 99 functions as an alternate or business route for many of these urban areas, including the Rogue Valley region.

Local demand in urban areas greatly influences the functionality of I-5. Auto-oriented development near interchanges has often impacted ramp terminal intersection operations and, at times, the freeway's mainline operations. In some locales, I-5 has come to operate as an alternate Main Street by serving high percentages of local trips rather than the long-distance trips for which it is primarily intended.

Congestion can impact on-time freight delivery by causing delay. If severe enough, it can force businesses to restructure shipping patterns, change employee deployment and shifts, and alter warehousing, production, and inventory practices. Although congestion within the Rogue Valley region affects freight operations to some degree, congestion in the Portland metropolitan region, which is beyond the purview of this Corridor Plan, also accounts for many of the delays in southern Oregon. Furthermore, truck operators must abide by federal Hours of Service rules issued by the Federal Motor Carrier Safety Administration that limit the number of daily and weekly hours of driving to reduce driver fatigue. Congestion-related delays impact the mileage that can be covered during driving shifts and lead to increased delivery times, which can force companies to increase inventories and operating costs.

Portions of I-5 have now reached or have exceeded the original design life, and high demands are creating operational and safety problems. Construction to add capacity is becoming increasingly difficult—economically, environmentally, and politically. Overall system deficiencies, regional issues, and local "hot spots" can have a major impact on the social and economic fabric of the state. These deficiencies can be compounded by local land use decisions.

Project Overview

The intent of this Corridor Plan is to build upon ODOT's previous efforts of assessing physical and operating conditions of the statewide I-5 corridor and to provide a general forecast of future travel demand by implementing a regional I-5 corridor plan through the Rogue Valley region. The ultimate outcome of this Corridor Plan will be to initiate solutions that meet ODOT's Mission Statement: *Provide a safe, efficient transportation system that supports economic opportunity and livable communities for Oregonians.*

The planning process for this 25-mile corridor will involve the following steps:

1. Define the problem(s) and establish goals and objectives.
2. Collect and analyze existing plans, land use/environmental constraints, facilities, operations, crash history, rail service, and Intelligent Transportation System (ITS) programs.
3. Assess future (2034) no-build conditions.

4. Identify potential projects and strategies and conduct corridor concepts analysis.
5. Develop a preferred alternative(s) resulting from Step 4.

Public involvement will play an important role throughout the Corridor Plan process. A Project Management Team (PMT) consisting of local agencies has been formed to provide technical and policy guidance throughout the planning process. The PMT will serve as the decision-making body for the Corridor Plan. The general public will be kept informed and will have opportunities to learn more about the Corridor Plan and to comment on items of interest through public meetings conducted in the "open house" format. The first of these open house meetings will be scheduled early in the planning process, and the second will be scheduled to occur towards the end, when alternatives are being assessed. In addition, the PMT will inform local elected officials through local agency presentations. All meeting discussions will be summarized and documented.

Goals and Objectives

Goals are high-level statements of the general issues and concerns to be addressed in the Corridor Plan, while objectives are specific and measurable statements that describe how the Corridor Plan would meet the goals. Furthermore, objectives provide a basis for evaluating and comparing alternatives in terms of their ability to meet the stated goals. The following goals and objectives were developed through input provided by the PMT and community stakeholders, including local residents, business owners, elected officials, and government staff.

Goal 1: Improved Efficiency of Traffic Operations

Problem Statement: I-5 and OR 99 from Ashland to Central Point have experienced increased congestion as a result of rapid growth in the Rogue Valley region, but budgetary constraints and competing demands limit the viability of capital-intensive capacity enhancements and economic development potential.

Goal Statement: Develop and implement management measures and limited physical improvements that maximize the efficiency of existing roadway facilities through 2035.

Objectives:

- *Explore options to mitigate impacts caused by delays at the Siskiyou Pass summit (e.g., delays caused by winter weather conditions).*
- *Explore options to improve alternate north-south connections east of I-5.*
- *Improve efficiency of the existing transportation system through Transportation Demand Management (TDM) strategies, Transportation System Management (TSM) measures, and Intelligent Transportation System (ITS) technology.*
- *Identify potential improvements to the Medford viaduct that incorporate incident management and other measures to maximize efficiency.*
- *Coordinate with the Rogue Valley Metropolitan Planning Organization (RVMPO) efforts to assess the OR 99 corridor and develop strategies that reduce vehicular congestion and support economic development.*

Goal 2: Improved Safety in the I-5 Corridor

Problem Statement: Roadway design issues, such as lane merges and weaving conflicts, result in potential hazardous conditions along I-5.

Goal Statement: Develop and implement measures to mitigate hazardous roadway conditions along I-5.

Objectives:

- *Explore improvement options for the southbound weigh station and northbound Port of Entry ramps.*
- *Identify high incident locations and develop measures for mitigation.*
- *Implement measures to better enable enforcement of traffic laws and to expedite incident response times.*

Goal 3: Improved Mainline Operations at Interchanges

Problem Statement: Several interchanges in the Rogue Valley are projected to experience high levels of congestion by 2020 (*The I-5 State of the Interstate Report*) that could potentially impact I-5 mainline operations, including ramp queuing, high merge/diverge volumes, and weaving movements.

Goal Statement: Maintain efficient operations of the I-5 mainline through interchanges by identifying capacity constraints and implementing physical improvements.

Objectives:

- *Integrate findings from the Corridor Plan with findings from the Interchange Area Management Plans (IAMPs) that are completed and from those that are under way.*
- *Limit the impacts of arterial system on I-5 mainline operations.*

Goal 4: Improved Freight Operations

Problem Statement: Continued economic prosperity in Oregon and the Pacific Northwest is hindered by over-reliance on trucks for freight transport, while other freight modes (e.g., rail and air) are underutilized.

Goal Statement: Identify physical and managerial improvements that maximize freight mobility and develop recommended policies and measures that can be implemented statewide to optimize the use of all modes of freight transport.

Objectives (Rail Operations):

- *Identify improvements for safety conflicts around existing rail tracks.*
- *Review general land use compatibility with the freight rail corridor and recommend potential changes to support increased rail usage.*
- *Identify potential state and federal funding to improve existing rail tracks and service.*
- *Identify constraints in the system today and determine how to improve operations and increase utilization.*

Objectives (Truck Operations):

- *Identify operations improvements at the Port of Entry.*
- *Explore and identify potential efficiency improvements that would ease congestion on existing interchanges and connecting roadways that arises from the transfer between double and triple trailers before entering or after leaving California.*
- *Explore viable solutions to enable more direct travel to and from delivery destinations and improve coordination for enhanced multimodal transport.*
- *Identify truck layover areas and implement improvements to enable staging of freight trucks during Siskiyou Pass closures.*
- *Develop expedited methods of informing truck operators of pending roadway changes ahead, such as construction or the closure of, or delays on, the Siskiyou Pass due to inclement weather.*