

Technical Memorandum

September 25, 2023

Project# 27003.014

To: Lisa Cornutt, Oregon Department of Transportation

Karl MacNair, City of Medford

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RE: Tech Memo #3.1.1: Plans and Policies Review

PLANS AND POLICIES REVIEW

This memorandum presents a review of existing plans and policies that affect transportation planning in the vicinity of the proposed South Stage Extension Plan (Plan). The review explains the relationship between the documents and the current planning process, identifying key issues that will factor into the South Stage Extension Plan. A summary of the documents reviewed and their application to the Project are provided in Table 1.

Table 1. Plans and Policies Reviewed

	Document	Key Applications for the Project
Federal Plans	Interstate System Access Informational Guide (2010)	The policies and guidance information provided in the Interstate System Access Informational Guide will be used to guide the development of the South Stage Extension Plan, including the documentation of the technical analysis used to support the recommendations of the Plan.
State Plans	Oregon Transportation Plan (OTP) (2006): New OTP will be reviewed as part of final draft	The goals and policies of the OTP will guide development of the South Stage Extension Plan, specifically in the areas of integrating transportation, land use, economic development, and the environment. In addition, the Plan will support investments in strategic capacity enhancements to preserve the long-term function of the transportation system.
	Oregon Highway Plan (OHP) (1999)	The South Stage Extension Plan will consider policies in the OHP to guide proposed improvements, modifications, or local policies that could affect any of the state facilities in the City of Medford. The Plan is being developed in coordination with ODOT so that projects, policies, and regulations proposed as part of the Plan will be consistent with the standards and targets established in the OHP related to safety, access, and mobility.
	Statewide Planning Goals	The South Stage Extension Plan will ensure consistency with Statewide Planning Goals. The Plan adoption findings will describe how each of the relevant goals are satisfied by the Plan.
	Highway Design Manual (HDM)	The HDM provides design standards and guidance applicable to I-5, OR 99, and any potential future state facilities. Proposed improvements to these facilities will be informed by the HDM.

Blueprint for Urban Design (BUD)	While the BUD was recently incorporated into the HDM, the BUD includes some unique criteria that are important for roadways that transition from rural to urban fringe to urban, and therefore will be considered in identifying the context and developing the alternatives for the South Stage Extension Plan (e.g., potential OR 99/South Stage Road intersection improvements).
Oregon Active Transportation Needs Inventory (ATNI)	The South Stage Extension Plan will consider the inventory information included in the ATNI as well as the evaluation and prioritization of gaps and deficiencies on state highways within the study area when developing alternatives.
OAR 734-051 (Highway Approached, Access Control, Spacing Standards and Median)	Analysis for the South Stage Extension Plan and final project recommendations will need to reflect state requirements for state facilities; the Plan will comply with or move in the direction of compliance with access management and spacing standards on I-5 and OR 99. Implementation measures that will be developed for the Plan may entail amendments to City Code to ensure local development requirements are consistent with state access management requirements as well as reflect recommendations related to safety and access management.
ORS 366.215 (Creation of State Highways — Reduction in Vehicle-Carrying Capacity)	I-5 is a Reduction Review Route. Therefore, any features included in the South Stage Extension Plan that could reduce vehicle-carrying capacity on OR 99 or I-5 must comply with the statute. Where necessary for safety or access considerations, the Plan may identify a need to obtain approval for proposed future actions by following the ORS 366.215 review process.
OAR 660-012 (Transportation Planning Rule [TPR])	The South Stage Extension Plan project will follow guidance provided in the TPR for authorizing the roadway project.
Interchange Area Management Plan (IAMP) Guidelines (2013)	The Project Team will use the IAMP Guidelines as a tool when developing the South Stage Extension Plan, ensuring that the process results in the level of analysis, plan content, and specific measures necessary to guide future improvements.
Statewide Transportation Improvement Program (STIP)	The South Stage Extension Plan will consider projects that are programmed in the STIP. An expected outcome of this planning process is potential proposed recommendations to amend the STIP to include projects from the Plan. Projects recommended in the Plan may be eligible for funding through the ODOT Enhance program, which awards funding through a competitive application process.
Oregon Freight Plan (2017)	Maintaining and enhancing efficiency of the truck freight system in the project area will be an objective of the South Stage Extension Plan (i.e., I-5 and OR 99).
Oregon Bike and Pedestrian Plan (OBPP) (2016)	The policies and design guidance in the OBPP apply to state highway facilities in the study area. State policy and design guidance will be considered when evaluating and planning for bicycle and pedestrian system elements.
Oregon Public Transportation Plan (2018)	The South Stage Extension Plan will consider the needs of the transit system in Medford, as well as the larger region, while developing recommendations related to public transportation facilities. In addition, the Project Advisory Committee will include representatives of the Rogue Valley Transit District, which will advise on transit needs and improvements.
Oregon Transportation Options Plan (OTOP)	The South Stage Extension Plan will draw on program and strategy ideas in the OTOP as appropriate to enhance opportunities for non-motorized transportation modes and transit in the study area.
Oregon Transportation Safety Action Plan (TSAP)	The Oregon TSAP will be used as a resource while preparing the South Stage Extension Plan. The City of Medford TSP includes a safety goal that

		will inform the development of the Plan, including the identification of transportation improvements that improve safety for all road users.
	Oregon Resilience Plan	The South Stage Extension Plan will draw upon sections of the Oregon Resilience Plan, particularly within the discussion of damage mitigation and risk reduction surrounding a future Cascadia earthquake and tsunami. The Resilience Plan will guide decisions on resilience measures for ground-shaking and other natural-disaster occurrences.
	OR 99 Plan	The South Stage Extension Plan will use the OR 99 Plan as a resource for transportation decision-making, particularly the relationship between planned projects of the OR 99 Plan and the surrounding streets/areas.
Local Plans	Rogue Valley Transit District (RVT) 2040 Transit Master Plan (2019)	The RVT 2040 Transit Master Plan will act as a resource for the planned/existing transit projects within the scope of the South Stage Extension Plan. The Master Plan provides valuable information that increases understanding the impact of the Plan on transit projects within Rogue Valley as well as important aims of the transit district that will be supported throughout project development and implementation.
	Rogue Valley Active Transportation Plan (RVATP) (2021)	The plans and policies of the RVATP are influential in the South Stage Extension Plan project as they enable understanding of the designated routes, connectivity priorities, and infrastructure requirements. Reviewing the RVATP helps ensure compliance with established guidelines and promotes smooth integration of the extension within the active transportation network.
	Medford Comprehensive Plan (2016)	The Medford Comprehensive Plan provides a thorough description of Medford's plans and policies that will be considered throughout the South Stage Extension Plan.
	Medford Transportation System Plan (TSP)(2018)	The relevant plans and policies of the Medford TSP will be considered in the development of the South Stage Extension Plan. Projects 537A and 537B of the Medford TSP specifically call for the South Stage Extension Plan project to contemplate an overpass and potential I-5 interchange. Further, the TSP calls for the South Stage Extension to be a minor arterial under an overpass and major arterial if an interchange is introduced. One of the anticipated outcomes of the Plan is an update to the Medford TSP to incorporate the final recommendations.
	Medford Natural Hazard Mitigation Plan (NHMP) (2022)	The South Stage Extension Plan will consider the goals and action items identified in the NHMP in developing and evaluating alternatives, including potential benefits that various alternatives may have on enhancing mitigation efforts after a natural hazard.
	ITS Regional Plan (2016)	The ITS Regional Plan offers critical insight into the implementation of advanced technologies within a region's transportation infrastructure. The objectives, policies, and potential solutions offered in the ITS Regional Plan will be considered when developing the South Stage Extension Plan.
	I-5 Medford Viaduct Planning and Environmental Study (2019)	Trends and occurrences recorded within the I-5 Medford Viaduct Planning and Environmental Study can be used to inform decision-making throughout the South Stage Extension Plan.
	Centennial Transportation Impact Study (2022)	The South Stage Extension Plan will consider the findings and recommendations of the Centennial Transportation Impact Study during the development and evaluation of transportation system alternatives, particularly those east of I-5.
	Rogue Valley Regional Transportation Plan (RTP) (2021)	The relevant plans and policies described in the Rogue Valley RTP will be used as a resource for the actions needed to achieve the transportation goals of the region within the South Stage Extension Plan.
	Jackson County Transportation System Plan (2023)	The Jackson County TSP will serve as a guiding framework and reference document to inform relevant decisions within the South Stage Extension Plan.

Jackson County Seismic Lifeline Evaluation (2023)	The South Stage Extension Plan will consider the findings of the Jackson County Seismic Lifeline Evaluation in developing and evaluating alternatives, including how the alternatives can support and/or improve the emergency transportation routes (ETRs) identified in the evaluation.
City of Phoenix TSP (2016)	The development of the South Stage Extension Plan will include consideration of the City of Phoenix TSP and its corresponding plans and policies.
I-5, Exit 24 IAMP (2011)	The identified deficiencies and projected outcomes highlighted by this plan offer insight on safety and efficiency-oriented interchange implementation. Such insights will be considered by the Project Team.
I-5, Exit 27 IAMP (2023)	The Exit 27 IAMP will be considered by the Project Management Team, particularly regarding the projected performance of the South Medford interchange in future years.
Bear Creek Area Management Plan (2006)	The South Stage Extension Plan will consider potential impacts to the Bear Creek Greenway along with maintenance and improvement needs.

Federal Plans

INTERSTATE SYSTEM ACCESS INFORMATIONAL GUIDE (2010)

The Interstate System Access Informational Guide provides guidance on how and what should be addressed in requests for new or modified access to the Interstate System. The guide provides information and methods for analyzing access requests by considering the needs of the system on a national, state, and local level without compromising the integrity of the interstate system.

Part 1 of the Guide discusses Federal Highway Administration (FHWA) policy supporting the need for the Interstate System Access Change Requests and the policies that support the interstate system. The applicability and other key points such as what constitutes an access point are discussed, along with the purpose; basis for justifying access changes; range of factors and issues to analyze in assessing impacts of proposed changes; how issues and analysis may vary based on conditions; and environment-related (e.g., rural, urban) issues.

Part 2 of the Guide provides guidance on the technical analysis needed to support changes in the Interstate System Access, including the following:

- Planning considerations, including the importance of the Interstate System Access Change Request within the planning process and how it relates to transportation plans and programs as well as the typical system and corridor planning that takes place between the development of a transportation plan and the decision by the agency to initiate and actual improvement project.
- Environmental considerations, including the extent of environmental documentation and the analysis required as part of an Interstate System Access Change Request.



- Design considerations, including a summary of the role of geometric design in identifying and evaluating impacts of various design elements.
- Safety considerations, including the safety issues to be considered and a framework for analysis.
- Operational considerations, including a summary of operations issues, performance measures, thresholds, selection of proper analysis tools, documentation of the analysis and the relationship of operations to design, safety, and the environmental issues.

Project Relevance: The policies and guidance information provided in the Interstate System Access Informational Guide will be used to guide the South Stage Extension Plan, including the documentation of the technical analysis used to support the recommendations of the Plan.

State Plans

OREGON TRANSPORTATION PLAN (2006)

The Oregon Transportation Plan (OTP) is the state's long-range multi-modal transportation plan that addresses the future transportation needs of the State of Oregon through the Year 2030. The primary function of the OTP is to establish goals, policies, strategies, and initiatives that are translated into a series of modal plans, such as the Oregon Highway Plan (OHP). The OTP considers all modes of Oregon's transportation system, including Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation, and railroads. It assesses state, regional, and local public and private transportation facilities. In addition, the OTP provides the framework for prioritizing transportation improvements based on varied future revenue conditions, but it does not identify specific projects for development.

The OTP provides broad policy guidance and sets seven overarching goals for the state.¹ Through these goals and associated policies and strategies, the OTP emphasizes:

- Maintaining and maximizing the assets in place.
- Optimizing the performance of the existing system through technology.
- Integrating transportation, land use, economic development, and the environment.
- Integrating the transportation system across jurisdictions, ownerships, and modes.
- Creating sustainable funding.
- Investing in strategic capacity enhancements.

¹ The seven goals are Goal 1 – Mobility and Accessibility; Goal 2 – Management of the System; Goal 3 – Economic Vitality; Goal 4 – Sustainability; Goal 5 – Safety and Security; Goal 6 – Funding the Transportation System; and Goal 7 – Coordination, Communication, and Cooperation.

The Implementation Framework section of the OTP describes the implementation process and how state multi-modal, modal/topic plans, regional and local transportation system plans (TSPs), and master plans will further refine the OTP's broad policies and investment levels.

Project Relevance: The goals and policies of the OTP will guide development of the South Stage Extension Plan, specifically in the areas of integrating transportation, land use, economic development, and the environment. In addition, the Plan will support investments in strategic capacity enhancements to preserve the long-term function of the transportation system. An update to the OTP is currently underway and will be reviewed as part of the final draft of this memorandum, as feasible.

OREGON HIGHWAY PLAN (1999)

The OHP is a modal plan of the OTP that guides planning, operations, and financing for the Oregon Department of Transportation (ODOT) Highway Division. Policies in the OHP emphasize the efficient management of the highway system to increase safety, extend highway capacity, establish partnerships with other agencies and local governments, and use new techniques to improve road safety and capacity. These policies also link land use and transportation; set standards for highway performance and access management; and emphasize the relationship between state highways and local road, bicycle, pedestrian, transit, rail, and air systems. The following policies are relevant to the South Stage Extension Plan process.

Policy 1A: State Highway Classification System

The OHP classifies the state highway system into four levels of importance: Interstate, Statewide, Regional, and District. ODOT uses this classification system to guide management and investment decisions regarding state highway facilities. The system guides the development of the facility plans, as well as ODOT's review of local plan and zoning amendments, highway project selection, design and development, and facility management decisions including road approach permits.

Interstate 5 (I-5) is classified as an Interstate highway and the Rogue Valley Highway (OR 99) is classified as a District Highway in the state classification system. The purpose and management objectives of these two highways are provided in Policy 1A and summarized below.

- **Interstate Highways** provide connections to major cities, regions of the state, and other states. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area. Interstate highways are major freight routes, and their objective is to provide mobility. The management objective is to provide safe and efficient high-speed continuous-flow operation in urban and rural areas.
- **District Highways** are facilities of county-wide significance and function largely as county and city arterials or collectors. They provide connections and links between small urbanized

areas, rural centers, and urban hubs, and they also serve local access and traffic. The management objective is to provide for safe and efficient, moderate- to high-speed continuous-flow operation in rural areas reflecting the surrounding environment and moderate- to low-speed operation in urban and urbanizing areas for traffic flow and for pedestrian and bicycle movements.

Policy 1C: State Highway Freight System

The primary purpose of the State Highway Freight System is to facilitate efficient and reliable interstate, intrastate, and regional truck movement through a designated freight system. This freight system, which is made up of the Interstate highways and select Statewide, Regional, and District highways, includes routes that carry significant tonnage of freight by truck and that serve as the primary Interstate and intrastate highway freight connection to ports, intermodal terminals, and urban areas. Highways included in this designation have higher highway mobility standards than other Statewide highways. I-5 is the only designated freight route in the area.

Policy 1F: Highway Mobility Standards Access Management Policy

Policy 1F sets mobility standards for ensuring a reliable and acceptable level of mobility on the state highway system. The standards are used to assess system needs as part of long-range, comprehensive planning for transportation projects during development review and to demonstrate compliance with the Transportation Planning Rule (TPR). Significant amendments to Policy 1F were adopted in 2011 to address concerns that state transportation policy and requirements have led to unintended consequences and inhibited economic development. Policy 1F now provides a clearer policy framework for considering measures other than volume-to-capacity (v/c) ratios for evaluating mobility performance.

Table 2 presents mobility targets for the state facilities in the study area. As shown, the targets are generally based on location, classification, and posted speed. It is important to note that achieving the v/c ratios in Table 2 for the state highway approaches to unsignalized intersections indicates that state mobility targets are being met. However, to maintain safe operations, non-state highway approaches are expected to achieve the v/c ratios for district/local interest roads.

Table 2. V/C Ratio Targets for Peak Hour Operating Conditions (OHP Table 6)

VOLUME TO CAPACITY RATIO TARGETS OUTSIDE METRO ^{17A, B, C, D}							
Highway Category	Inside Urban Growth Boundary					Outside Urban Growth Boundary	
	STA ^E	MPO	Non-MPO Outside of STAs where non-freeway posted speed ≤ 35 mph, or a Designated UBA	Non-MPO outside of STAs where non-freeway speed > 35 mph but < 45 mph	Non-MPO where non-freeway speed limit ≥ 45 mph	Unincorporated Communities ^F	Rural Lands
Interstate Highways	N/A	0.85	N/A	N/A	0.80	0.70	0.70
Statewide Expressways	N/A	0.85	0.85	0.80	0.80	0.70	0.70
Freight Route on a Statewide Highway	0.90	0.85	0.85	0.80	0.80	0.70	0.70
Statewide (not a Freight Route)	0.95	0.90	0.90	0.85	0.80	0.75	0.70
Freight Route on a regional or District Highway	0.95	0.90	0.90	0.85	0.85	0.75	0.70
Expressway on a Regional or District Highway	N/A	0.90	N/A	0.85	0.85	0.75	0.70
Regional Highways	1.0	0.95	0.90	0.85	0.85	0.75	0.70
District/Local Interest Roads	1.0	0.95	0.95	0.90	0.90	0.80	0.75

^A Unless the Oregon Transportation Commission has adopted an alternative mobility target for the impacted facility, the mobility targets in Tables 6 are considered standards for purposes of determining compliance with OAR 660-012, the Transportation Planning Rule.

^B For the purposes of this policy, the peak hour shall be the 30th highest annual hour. This approximates weekday peak hour traffic in larger urban areas. Alternatives to the 30th highest annual hour may be considered and established through alternative mobility target processes.

^C Highway design requirements are addressed in the Highway Design Manual (HDM).

^D See Action 1F.1 for additional technical details.

^E Interstates and Expressways shall not be identified as Special Transportation Areas.

^F For unincorporated communities inside MPO boundaries, MPO mobility targets shall apply.

Policy 1G: Major Improvements

This policy requires maintaining performance and improving safety on the highway system by improving efficiency and management of the existing roadway network before adding capacity. The state’s highest priority is to preserve the functionality of the existing highway system. Tools that are employed to improve the function of the state highway system include access management, transportation demand management, traffic operations modifications, and changes to local land use designations or development regulations.

After existing system preservation, the second priority is to make minor improvements to existing highway facilities, such as making improvements to the local street network to minimize local trips on a state facility. The third priority is to make major roadway improvements such as adding lanes to increase capacity on existing roadways. As part of this process, ODOT will work with the City of Medford and other stakeholders to determine appropriate strategies and tools that can be implemented at the local level that are consistent with this policy.

Policy 2B: Off-System Improvements

This policy recognizes that the state may provide financial assistance to local jurisdictions to make improvements to local transportation systems if the improvements would provide a cost-effective means of improving the operations of the state highway system. As part of this process, ODOT will work with the City of Medford and other stakeholders to identify improvements to the local road system that will help preserve capacity and ensure the long-term efficient and effective operation of high functional class facilities.

Policy 3A: Classification and Spacing Standards

This policy seeks to manage the location, spacing, and type of road intersections on state highways in a manner that ensures the safe and efficient operation of state highways consistent with their highway classification. Action 3A.2 calls for spacing standards to be established for state highways based on highway classification, type of area, and posted speed. Tables in OHP Appendix C present access spacing standards that consider urban and rural highway classification, traffic volumes, speed, safety, and operational needs. The access management spacing standards established in the OHP are implemented by Oregon Administrative Rule (OAR) 734, Division 51, and are addressed later in this technical memorandum.

Policy 4A: Efficiency of Freight Movement

This policy emphasizes the need to maintain and improve the efficiency of freight movement on the state highway system. It seeks to balance the needs of long distance and through-freight movements with local transportation needs on highway facilities in both urban and rural areas. As indicated above, I-5 is a designated freight route.

Project Relevance: OHP policies provide guidance related to the accessibility, mobility, and function of state highways. The South Stage Extension Plan will consider policies in the OHP to guide proposed improvements, modifications, or local policies that could affect any of the state facilities in the City of Medford. The Plan is being developed in coordination with ODOT so that projects, policies, and regulations proposed as part of the Plan will be consistent with the standards and targets established in the OHP related to safety, access, and mobility.

STATEWIDE PLANNING GOALS

The foundation of Oregon’s statewide land use planning program is a set of 19 Statewide Planning Goals that express the state’s policies on land use and other related topics, such as citizen involvement, housing, and natural resources. Oregon’s statewide planning goals are achieved through local comprehensive plans, transportation system plans, and the development and implementation of facility plans.

All the Statewide Planning Goals influence transportation planning, either directly or indirectly. However, only certain goals directly apply to transportation planning at a local level; the goals listed in Table 3 are most relevant to the South Stage Extension Plan process.

Table 3. Statewide Planning Goals Relevant to the South Stage Extension Plan

Statewide Planning Goal	Relevancy to the Plan Process
Goal 1: Citizen Involvement	Establishes citizen involvement as the primary goal of the land use planning process in Oregon. The South Stage Extension Plan process is guided by a robust public involvement and communications plan that includes public involvement goals, identified affected and interested stakeholder and target audiences, and critical factors that will gauge success. In addition, this project will be guided by a Project Management Team, Project Development Team, and Project Advisory Committee that will inform the Plan process throughout the course of the project.
Goal 2: Land Use Planning	Establishes a process and policy framework for all decisions and actions related to land uses. It also ensures that such decisions and actions are premised on an adequate factual base. Existing and future transportation needs will be based on an evaluation of existing and planned land uses, as well as improving efficient multi-modal connections to housing, public services, employment areas, and recreational opportunities.
Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces	Existing natural resources and environmental features influence the siting, construction, and cost of transportation improvements. The project will provide inventories of these resources as well as illustrate and describe areas within the City of Medford that may pose barriers to providing transportation access or improvements.
Goal 7: Natural Hazards	The risk of natural hazards affects site selection and alignment decisions and facility design standards. Transportation improvement projects should avoid natural hazard areas, such as floodplains, to the extent feasible.
Goal 9: Economic Development	Addresses the need for a variety of economic opportunities in support of the health, welfare, and prosperity of Oregon’s citizens. The planning process should be coordinated with current and planned economic development activities.
Goal 10: Housing	Cities are required to anticipate ongoing needs for housing and to provide adequate infrastructure to serve residential uses. Transportation facilities and project prioritization will be based, in part, on the demands generated by current and projected housing needs.
Goal 11: Public Facilities and Services	Local governments are required to provide adequate public facilities, including transportation facilities, in a timely and efficient manner. The project will coordinate with or consider the provision of other public facilities consistent with adopted plans.
Goal 12: Transportation	Requires multi-modal transportation plans that: <ul style="list-style-type: none"> – Are based on factual inventories, – Minimize adverse social, environmental, economic, and energy impacts, – Meet the needs of the transportation disadvantaged, – Facilitate the flow of goods and services, and – Are consistent with related local and regional plans.

	Goal 12 is implemented through the Transportation Planning Rule (OAR 660, Division 12).
Goal 13: Energy Conservation	Land uses must be managed and controlled to maximize the conservation of all forms of energy based upon sound economic principles. In transportation planning, this includes consideration of travel distances and mode share.
Goal 14: Urbanization	Requires land within the urban growth boundary (UGB) to "provide an orderly and efficient transition from rural to urban land use." Findings regarding adequate transportation and other public facilities is required for expansion of UGBs.
Goal 16: Estuarine Resources	Requires individual estuary plans to designate appropriate uses for different areas within each estuary based on biological and physical characteristics and features. Proposed estuarine alterations must be reviewed to ensure that they are consistent with overall management objectives and that adverse impacts are minimized.

Project Relevance: The South Stage Extension Plan will ensure consistency with Statewide Planning Goals. The Plan adoption findings will describe how each of the relevant goals are satisfied by the Plan.

HIGHWAY DESIGN MANUAL

The Highway Design Manual (HDM) provides ODOT with uniform standards and procedures for planning studies and project development for the state’s roadways. It is intended to provide guidance for the design of all projects on the state’s highways.² It generally agrees with the *American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets (2018)* but anticipates that sound engineering judgment will continue to be a vital part of applying the design criteria to individual projects. The flexibility contained in the 2023 HDM supports the use of Performance-Based Practical Design concepts and Context Sensitive Design practices.

State and local planners use the manual to determine design requirements as they relate to the state highways in transportation system plans, corridor plans, and refinement plans. Some projects under ODOT roadway jurisdiction traverse across local agency boundaries; for such facilities, local agencies may have adopted design standards and guidelines that differ from ODOT design standards. Although the appropriate ODOT design standards are to be applied on ODOT roadway jurisdiction facilities, local agency publications and design practices can also provide additional guidance, concepts, and strategies related to roadway design. When determining the appropriate design standard for use in project development, work types can be divided into the categories listed in Table 4. Funding may come from a number of programs, but it is the type of work that determines the design standard to use.

² National Highway System or federal-aid projects on roadways that are under the jurisdiction of cities or counties will typically use the 2018 AASHTO design standards or ODOT 3R design standards. Use of the 2023 Highway Design Manual is required on all projects with the Plans, Specifications, and Estimates (PS&E) milestone on and after January 1, 2023.

Table 4. Potential Applicable Design Standards (HDM Table 100-2)

Work Type	1R	3R	4R	AASHTO
Modernization			✓	
Preservation: Resurfacing	✓	✓		
Preservation: Interstate Maintenance	✓	✓		
Safety Improvements		✓	✓	
Operations		✓	✓	
Maintenance	✓	✓	✓	
Misc./Special Programs: Grant Project			✓	✓
Misc./Special Programs: Property Development Permit Projects		✓	✓	
Misc./Special Programs: Emergency/Natural Disaster		✓*		
Local Programs			✓**	✓

- ✓* - Emergency/Natural Disaster projects may not be required to comply with all 3R design standards, as the main goal of these projects is to reopen compromised sections of highway, and projects are often designed to, at a minimum, meet design standards of the pre-emergency condition. However, it is important that permanent repairs should incorporate current design standards that do not materially change the function or character of the facility.
- ✓** - On or along the state highway

The HDM includes mobility standards related to project development and design that are applicable to all modernization projects, except for development review projects (see Table 4). The v/c ratios in the HDM are different than those shown in the OHP. The v/c ratio values in the OHP are used to assist in the planning phase to identify future system deficiencies, while the HDM v/c ratio values provide a mobility solution that corrects those previously identified deficiencies and provides the best investment for the state over a 20-year design life.

Table 5. 20-Year Design Mobility Standards (Volume/Capacity [V/C] Ratio) (HDM Table 1200-1)

Highway Category	Land Use Type/Speed Limits					
	Inside Urban Growth Boundary				Outside Urban Growth Boundary	
	STAs	MPO	Non-MPO outside of STAs where non-freeway speed limit <45 mph	Non-MPO where non-freeway speed limit >= 45 mph	Unincorporated Communities	Rural Lands
Interstate Highways and Statewide (NHS) Expressways	N/A	0.75	0.70	0.65	0.60	0.60
Statewide (NHS) Freight Routes	0.85	0.75	0.70	0.70	0.60	0.60
Statewide (NHS) Non-Freight Routes and Regional or District Expressways	0.90	0.80	0.75	0.70	0.60	0.60
Regional Highways	0.95	0.85	0.75	0.75	0.70	0.65
District/Local Interest Roads	0.95	0.85	0.80	0.75	0.75	0.70

Notes:

- Interstates and Expressways shall not be identified as Special Transportation Areas (STAs).
- The peak hour is the 30th highest annual hour. This approximates weekday peak hour traffic in larger urban areas.
- MPO category includes areas within the planning boundaries of the Bend, Corvallis, Eugene/Springfield, Medford, Portland (METRO) and Salem/Keizer Metropolitan Planning Organizations, and any other MPO areas that are designated after the completion of this manual.

Originally developed in 2020 as a standalone document, the Blueprint for Urban Design, or BUD, has now been incorporated into the HDM. The HDM now includes the six urban contexts that were established to provide design flexibility. The key concepts introduced by the BUD are that urban design:

- includes urban context in addition to the existing highway classification;
- highlights and provides flexibility;
- introduces performance concepts with practical design as performance-based, practical design;
- starts at the highest level of protection for pedestrians, bicyclists, and other users of the pedestrian and transition cross-section realms; and
- provides a focused design documentation process.

Urban contexts as defined in the HDM are based on existing and future land use characteristics, development patterns, roadway classification and connectivity, along with overall community goals and aspirations. The HDM describes ODOT’s Urban Design Initiative, which provides principles and guidance that can be used for both planners and engineers “to allow flexibility to meet the modal needs of the users in urban communities.”

Section 602.1 Warrants for Interchanges and Grade

Section 602.1 of the HDM provides warrants for interchanges and grade-separations. Per the HDM, several conditions need to be considered when deciding whether to use an interchange as a transportation solution:

- Design consideration – fully access-controlled facilities
- Reduction of bottlenecks or congestion
- Reduction of crash frequency and severity
- Site topography
- Traffic volume road user benefits – cost of delays and congestion

Section 602.2 Interchange Spacing

Section 602.2 of the HDM provides interchange spacing requirements. Per Table 600-2 of the HDM, the minimum interchange spacing along freeways (Interstate and Non-Interstate) is 3 miles in urban areas and 6 miles in rural areas. Spacing distance is measured from crossroad to crossroad. A design exception is required if interchange spacing standards are not met for new interchanges. OAR 734, Division 51, provides additional guidance on other Interstate and non-Interstate interchange spacing criteria.

Section 602.3 Access Control at Interchanges

Section 602.3 of the HDM provides guidance on access spacing along crossroads in an interchange area. Access spacing standards have been developed that depend on the type of area adjacent to the freeway interchange. Per the HDM, at new interchanges with new crossroads, access control should be provided a minimum distance of 1,320 feet from the centerline of the ramp. OAR 734, Division 51, and the OHP provide information and spacing requirements for interchanges and interchange management areas at urban and rural locations.

Project Relevance: The HDM provides design standards and guidance applicable to I-5, OR 99, and any potential future state facilities, including an overpass or interchange. Proposed improvements to these facilities will be informed by the HDM.

BLUEPRINT FOR URBAN DESIGN

The BUD was a bridging document that established the criteria to be used when designing urban projects on the state highway system. The BUD follows federal guidelines and principles utilizing a performance-based, context-sensitive, practical design approach to provide flexibility where warranted to produce appropriate designs to accommodate all modes of transportation affecting all urban roadway users. Tradeoffs between design elements in urban cross-sections are inevitable when working within the built environment. The BUD provides information and criteria to aid project teams to make appropriate choices when developing final project designs to meet established project goals and create expected outcomes. Every urban project has unique opportunities, and the six urban contexts portrayed in the BUD, along with their respective design criteria, allow project teams to better align ODOT's transportation needs with local community aspirations.

Project Relevance: While the BUD was recently incorporated into the HDM, the BUD includes some unique criteria that are important for roadways that transition from rural to urban fringe to urban, and therefore will be considered in identifying the context and developing the alternatives for the South Stage Extension Plan (e.g., potential OR 99/ South Stage Road intersection improvements).

OREGON ACTIVE TRANSPORTATION NEEDS INVENTORY

The Oregon Active Transportation Needs Inventory (ATNI) provides an inventory of existing pedestrian, bicycle, and shoulder facilities on all state highways and identifies areas where additional facilities may be needed to create safer, walkable, and bikeable networks in and between communities across the state. The ATNI includes an evaluation of the existing facilities with respect to ODOT's current design standards and identifies gaps and deficiencies in the system. The ATNI uses the design standards to identify gaps and deficiencies, but it does not identify specific improvements to bicycle and pedestrian systems. The ATNI also prioritizes the gaps and deficiencies on a statewide and regional level based on a range of evaluation criteria designed to classify and prioritize the pedestrian and bicycle needs on the system as well as understand the highest areas of need.

The ATNI identifies OR 99 as a top-scoring urban and rural corridor for bicycle facilities and a top-scoring rural corridor for pedestrian facilities. "Top scoring" means areas with the highest need. Several segments along OR 99 are among the top-scoring segments throughout the state. The South Stage Road extension is not included in the ATNI, nor is Phoenix Road or other local facilities.

Project Relevance: The South Stage Extension Plan will consider the inventory information included in the ATNI as well as the evaluation and prioritization of gaps and deficiencies on the state highways within the study area when developing alternatives.

OAR 734-051 (HIGHWAY APPROACHES, ACCESS CONTROL, SPACING STANDARDS AND MEDIAN)

OAR 734-051 defines the state's role in managing access to highway facilities to maintain functional use and safety and to preserve public investment. OAR 734-051 sets access management spacing standards for driveways and intersections on the state highway system as well as spacing standards for interchanges and approaches in interchange areas. The spacing standards for driveways and intersections are based on the state highway classification and differ depending on posted speed and average daily traffic volume. In contrast, the spacing standards for interchanges is based on the configuration of the crossroad (two-lane versus multi-lane) and the category of the mainline (freeway versus expressways or state highways) and differ depending on the type of area (fully developed urban, urban, or rural) and/or speed of the mainline. At this stage, information provided in Tables 7 or 8 (See OAR 734-051-4020) could apply to a potential future interchange along South Stage Road.

Project Relevance: Analysis for the South Stage Extension Plan and final project recommendations will need to reflect state requirements for state facilities. The Plan will comply with or move in the direction of compliance with access management and spacing standards on I-5 and OR 99. Implementation measures that will be developed for the Plan may entail amendments to City Code to ensure local development requirements are consistent with state access management requirements as well as reflect recommendations for safety and access management.

ORS 366.215 (CREATION OF STATE HIGHWAYS – REDUCTION IN VEHICLE-CARRYING CAPACITY)

Oregon Revised Statute (ORS) 366.215 identifies the Oregon Transportation Commission's (OTC's) authority to build and modify state highways. The statute states that the OTC may not permanently reduce the "vehicle-carrying capacity" of an identified freight route (a.k.a. Reduction Review Route) unless safety or access considerations require the reduction, or a local government requests an exemption, and the Commission determines it is in the best interest of the state and freight movement is not unreasonably impeded.

In the context of this statute, "vehicle-carrying capacity" refers to the vertical and horizontal clearance of a highway section that can physically carry motor vehicles. A reduction of vehicle-carrying capacity means a permanent reduction in the horizontal or vertical clearance of a highway section, by a permanent physical obstruction to motor vehicles located on useable right-of-way subject to OTC jurisdiction, unless such changes are supported by the Stakeholder Forum.

Examples of permanent structures that can result in a reduction in vehicle-carrying capacity include bridge structures, traffic signals, signposts, stationary bollards, curbs, bulb-outs, trees,

raised or depressed medians, pedestrian refuge islands, traffic separators, roundabouts, streetlights, and overhead wiring. Street markings such as bike lane striping or on-street parking are not considered reductions of vehicle-carrying capacity.

Project Relevance: I-5 is a Reduction Review Route. Therefore, any features included in the final Plan that could reduce vehicle-carrying capacity on I-5 must comply with the statute. Where necessary for safety or access considerations, the Plan may identify a need to obtain approval for proposed future actions by following the ORS 366.215 Review Process.

OAR 660-012 (TRANSPORTATION PLANNING RULE)

OAR 660-012, also known as the TPR, implements Statewide Planning Goal 12: Transportation. The TPR contains numerous requirements governing transportation planning and project development. In addition to guiding local plan development, the TPR requires local governments to perform an enhanced review of select roadway projects, such as the South Stage extension (OAR 660-012-0830).

Compliance with OAR 660-012-0830 requires local governments to initiate an authorization process through action of the governing body, designate the project limits and characteristics of the proposed facility, designate a facility impact area and determine affected jurisdictions, conduct an engagement-focused equity analysis of the proposed facility, develop a public involvement strategy, conduct an alternatives review as provided, choose to move forward with an authorization report, complete an authorization report, and publish the authorization report.

Project Relevance: The South Stage Extension Plan project will follow guidance provided in the TPR for authorizing the roadway project.

INTERCHANGE AREA MANAGEMENT PLAN GUIDELINES (2013)

The Interchange Area Management Plan (IAMP) Guidelines provide background information regarding the purpose and regulatory significance of the IAMP and addresses the following:

- IAMP contents and level of analysis
- Timing of the IAMP related to project development
- The IAMP preparation process
- Relationship of ODOT and local governments to the IAMP
- Relationship of the IAMP to the National Environmental Policy Act (NEPA)
- Schedule, cost, and funding of the IAMP

As part of the IAMP Process, the guidelines establish local development code, deed restrictions, funding mechanisms, traffic/transportation mechanisms, and access management as IAMP implementation measures. The guidelines identify policy statements, concurrency ordinances, trip capacity/allocation ordinances, trip budgets, overlay districts, and design review and

performance standards as specific implementation measures to be pursued through potential local development code amendments.

The 2013 update to the guidelines retained much of the original material and added new information, including differentiation of access management plans and strategies and expanded explanations of the coordination of the IAMP with project development.

Project Relevance: The Project Team will use the IAMP Guidelines as a tool during development of the South Stage Extension Plan, ensuring that the process results in the level of analysis, plan content, and specific measures necessary to guide future improvements.

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM

The State Transportation Improvement Program (STIP) is ODOT's 4-year programming and funding document for transportation projects and programs on state and regional transportation systems, including federal land and Indian reservation road systems; interstate, state, and regional highways; bridges; and public transit. It includes improvements that have approved state and federal funding and that are expected to be undertaken during the upcoming 4-year period. Prior to inclusion in the STIP, projects and programs undergo a selection process managed by ODOT Regions or ODOT central offices, a process that is held every 2 years in order to update the STIP.

The 2021-2024 STIP includes the following project in the study area:

- South Stage Extension Plan – Project Key: 22623. Study the feasibility and impacts of extending South Stage Road over I-5 to N Phoenix Road between Phoenix and the South Medford Interchange to fund a future project.

Project Relevance: The South Stage Extension Plan will consider projects that are programmed in the STIP. An expected outcome of this planning process is potential proposed recommendations to amend the STIP to include projects from the Plan. Projects recommended in the Plan may be eligible for funding through the ODOT Enhance program, which awards funding through a competitive application process.

OREGON FREIGHT PLAN (2023)

The Oregon Freight Plan (OFP) is the modal plan that guides the movement of goods and commodities on the state highway system. Its purpose statement identifies the intent to "improve freight connections to local, Native American, state, regional, national and global markets in order to increase trade-related jobs and income for workers and businesses." The objectives of the plan include prioritizing and facilitating investments in freight facilities (including rail, marine, air, and pipeline infrastructure) and adopting strategies to maintain and improve the freight transportation system.

The plan defines a statewide strategic freight network. I-5 is designated as a strategic corridor among the Western Corridor Freight Facilities in the OFP. The following policy and strategic direction provided in the OFP prioritizes the preservation of strategic corridors and improvements to the supply chain through the coordination of freight and system management planning.

- Strategy 1.2: Support freight access to the Strategic Freight System. This includes proactively protecting and preserving corridors designated as strategic.
 - Action 1.2.1: Preserve freight facilities included as part of the Strategic Freight System from changes that would significantly reduce the ability of these facilities to operate as efficient components of the freight system, unless alternate facilities are identified or a safety-related need arises.
- Strategy 2.4: Coordinate freight improvements and system management plans on corridors comprising the Strategic Freight System with the intent to improve supply chain performance.

Project Relevance: Maintaining and enhancing efficiency of the truck freight system in the project area (e.g., I-5 and OR 99) will be an objective of the South Stage Extension Plan.

OREGON BIKE AND PEDESTRIAN PLAN (2016)

The intent of the Oregon Bicycle and Pedestrian Plan (OBPP) is to create a policy foundation that supports decision-making for walking and biking investments, strategies, and programs that help to develop an interconnected, robust, efficient, and safe transportation system. The OBPP establishes the role of walking and biking as essential modes of travel within the context of the entire transportation system and recognizes the benefit of these modes to the people and places in Oregon.

The OBPP provides direction for what needs to be achieved, including 20 policies and associated strategies designed to help develop, sustain, and improve walking and biking networks. It identifies nine goals based upon the broader goals of the OTP that reflect statewide values and desired accomplishments relating to walking and biking:

- Goal 1: Safety
- Goal 2: Accessibility and Connectivity
- Goal 3: Mobility and Efficiency
- Goal 4: Community and Economic Vitality
- Goal 5: Equity
- Goal 6: Health
- Goal 7: Sustainability
- Goal 8: Strategic Investment
- Goal 9: Coordination, Cooperation, and Collaboration

The OBPP also provides background information related to state and federal law, funding opportunities, and implementation strategies proposed by ODOT to improve bicycle and pedestrian transportation. It outlines the role that local jurisdictions play in the implementation of the OBPP, including the development of local pedestrian and bicycle plans as stand-alone documents within TSPs.

The Oregon Bicycle and Pedestrian Design Guide is the technical element of the OBPP that guides the design and management of bicycle and pedestrian facilities on state-owned facilities. It is an appendix to the HDM and provides best practices and design guidelines for bicycle and pedestrian facilities.

Project Relevance: The policies and design guidance in the OBPP apply to state highway facilities in the study area. State policy and design guidance will be considered in evaluating and planning for bicycle and pedestrian system elements.

OREGON PUBLIC TRANSPORTATION PLAN

The Oregon Public Transportation Plan (OPTP) provides guidance for ODOT and public transportation agencies regarding the development of public transportation systems. The OPTP is intended to establish a common foundation for local, regional, and state agencies by addressing the following:

- Vision and goals for public transportation
- A policy and strategy framework to inform decision-making
- Possible priorities under different levels of funding for public transportation
- Opportunities and challenges in investment and implementation
- Positioning public transportation as a key part of Oregon's transportation system

The stated vision in the OPTP is:

In 2045, public transportation is an integral, interconnected component of Oregon's transportation system that makes Oregon's diverse cities, towns, and communities work. Because public transportation is convenient, affordable, and efficient, it helps further the state's quality of life and economic vitality and contributes to the health and safety of all residents, while reducing greenhouse gas emissions.

The OPTP establishes and is organized into the following 10 goal areas:

1. Mobility – Public Transportation User Experience
2. Accessibility and Connectivity – Getting from Here to There
3. Community Livability and Economic Vitality
4. Equity

5. Health
6. Safety and Security
7. Environmental Sustainability
8. Land Use
9. Strategic Investment
10. Communications, Collaboration and Coordination

While the OPTP does not recommend specific projects or investments, new efforts in planning for transit came with the passage of HB 2017 (Keep Oregon Moving Act) and the establishment of a new dedicated source of funding for expanding public transportation service in Oregon.³ The Statewide Transportation Improvement Fund (STIF) provides the impetus for coordinating the prioritization of needed infrastructure. The STIF is continuously appropriated to finance investments and improvements in public transportation services and may be used to support the effective planning, deployment, operation, and administration of STIF-funded public transportation programs. The STIF may be also used as the local match for state and federal funds that also provide public transportation service.⁴ As of July 2023, STIF was merged into the Special Transportation Fund (STF) program, which provides funding to transit districts across the state.

Project Relevance: The South Stage Extension Plan will consider the needs of the transit system in Medford, as well as the larger region, while developing recommendations related to public transportation facilities. In addition, the Project Advisory Committee will include representatives of the Rogue Valley Transit District who will advise on transit needs and improvements.

OREGON TRANSPORTATION OPTIONS PLAN

The Oregon Transportation Options Plan (OTOP) is a topic plan that establishes policies, strategies, and programs that promote efficient use of existing transportation system investments, thereby reducing the reliance on the single-occupancy vehicles and facilitating more transportation by walking, biking, taking transit, and ridesharing.

Adoption of the OTOP established a statewide vision for transportation options in Oregon to provide travelers of all ages and abilities with options on how to access goods, services, and opportunities across the state. Transportation operations strategies and programs do not address capital infrastructure investments, but rather provide information and resources that allow people to bike, walk, take transit, drive, share rides, and telecommute.

³ <https://www.oregon.gov/ODOT/Pages/HB2017.aspx>

⁴ <https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=245662>

Project Relevance: The South Stage Extension Plan will draw on program and strategy ideas in the OTOP as appropriate to enhance opportunities for non-motorized transportation modes and transit in the study area.

OREGON TRANSPORTATION SAFETY ACTION PLAN

The Oregon Transportation Safety Action Plan (TSAP) provides long-term goals, policies, and strategies and near-term actions to eliminate transportation-related deaths and life-changing injuries. The TSAP addresses all modes on public roads in Oregon. Over the long term, the goals of the TSAP are as follows:

- **Safety Culture** – Transform public attitudes to recognize all transportation system users have the responsibility for other people’s safety in addition to their own; build a culture among employees and agency partners to integrate safety considerations into all responsibilities.
- **Infrastructure** – Develop and improve infrastructure to eliminate fatalities and serious injuries for users of all modes.
- **Healthy, Livable Communities** – Plan, design, and implement safe systems. Support enforcement and emergency medical services to improve the safety and livability of communities, including improved health outcomes.
- **Technology** – Plan, prepare for, and implement technologies (existing and new) that can affect transportation safety for all users.
- **Collaborate and Communicate** – Create and support a collaborative environment for transportation system providers and public and private stakeholders to work together to eliminate fatalities and serious injury crashes.
- **Strategic Investments** – Target safety funding for effective engineering, emergency response, law enforcement, and education priorities.

The plan provides an overview of how the TSAP is intended to be used and the roles and responsibilities of various transportation agencies and levels of government. It identifies actions that jurisdictions can take to increase transportation safety, such as adopting a Safe Communities Program, which is a collaborative partnership with the National Highway Traffic Safety Administration, ODOT, and other local partners to promote safety. Safe Routes to School is another popular locally initiated program that may be supported by grant funding that targets safety improvements to encourage walking and biking to school.

The TSAP provides near-term actions for improving safety that can be used by all jurisdictions responsible for maintaining and improving transportation systems. Actions that a city can undertake to accomplish the plan’s goals include:

- Evaluate local spot-specific and systemic safety needs; develop plans and programs to address needs.

- Collaborate with the state, metropolitan planning organizations (MPO), and stakeholder partners to educate the public about tribal, county, and city transportation safety-related behavioral issues.
- Integrate safety programming, planning, and policy into local planning.
- Develop coalitions with enforcement and emergency service providers to target and improve specific community needs.
- Use the TSAP as a resource for local goals, policies, strategies, and actions.

The updated TSAP Chapter 6 addresses near-term implementation focus areas for achieving the plan's goals, policies, and strategies. Organized by Emphasis Area, actions that jurisdictions can undertake are listed below.

Speeding Actions

- Establish target speeds consistent with facility design, safety goals, context, users, and land use. Apply the BUD in urban contexts.

Intersection Actions

- Implement hot spot and systemic intersection safety improvements consistent with the updated Intersection Safety Implementation Plan.
- Implement intersection design treatments to reduce conflicts between all users, increase awareness, and improve compliance.
- Implement access management on high-volume roads and/or around intersections to reduce the number and severity of crashes.
- Improve visibility of vehicles and pedestrians and bicycles along corridors and at intersections with lighting and unobstructed sightlines.

Roadway Departure

- Design and implement cost-effective hotspot and systemic roadway departure improvements addressing risk factors associated with lane departure and run-off-road crashes on state and local facilities.

Pedestrian and Bicyclist Actions

- Prioritize safety investments on identified high-crash and high-risk pedestrian locations per National Cooperative Highway Research Program 20-44(13) methodology, including transit corridors, school areas, multi-lane roads, urban state highways, and other high-risk areas.
- Design for appropriate road capacity to reduce crosswalk length and crosswalk conflicts and utilize proven safety countermeasures such as road reconfigurations where appropriate.

- Design and construct corridors and facilities for pedestrians and bicyclists consistent with the Blueprint for Urban Design, based on land use and provide appropriate, safe pedestrian crossings along corridors to accommodate pedestrian needs.
- Prioritize multi-modal safety investments in areas with a high concentration of historically underserved communities, such as low income and black, indigenous, and people of color (BIPOC) communities.

Project Relevance: The Oregon TSAP will be used as a resource while preparing the South Stage Extension Plan. The City of Medford TSP includes a safety goal that will inform the development of the Plan, including the identification of transportation improvements that improve safety for all road users.

OREGON RESILIENCE PLAN

The Oregon Resilience Plan is a comprehensive strategic framework designed to improve the resilience of critical infrastructure systems in Oregon. It integrates multi-disciplinary approaches, risk assessment methodologies, and modeling techniques to identify vulnerabilities of the next Cascadia earthquake and tsunami and develops risk reduction and recovery strategies. The plan focuses on improving the robustness and adaptability of key sectors, such as transportation, energy, water, and telecommunications, to withstand and rebound from a large natural disaster.

The Transportation section of the Oregon Resilience Plan emphasizes the importance of transportation systems in emergency response, access to important buildings, restoration of utilities, and the reopening of businesses in the event of large natural disaster. The task group established resilience targets aligning with a three-tiered approach to the restoration of the transportation network: Tier 1 being a small, limited transportation network and Tier 3 being a more complete transportation network. The plan acknowledges that the Oregon transportation system's vulnerability to ground shaking and tsunami inundation from a Cascadia subduction zone earthquake will likely result in devastating initial damage in coastal communities and western Oregon.

The plan designates a "backbone system" (a minimum network of highway routes), including segments of I-5, I-84, US 97, and OR 58, which should be made resilient within 10 years. The backbone system also includes airports, such as the Rogue Valley International Medford Airport. The purpose of designating a backbone system is to provide connectivity in the event of a natural disaster while minimizing retrofit costs.

Project Relevance: The South Stage Extension Plan will draw upon sections of the Oregon Resilience Plan, particularly within the discussion of damage mitigation and risk reduction for a future Cascadia earthquake and tsunami. The resilience plan offers guidance on ways to build resilience against ground shaking and other natural-disaster occurrences.

OR 99 ROGUE VALLEY CORRIDOR PLAN

The OR 99 Rogue Valley Corridor Plan is a strategic transportation plan aimed at enhancing the efficiency and functionality of the OR 99 corridor. The plan focuses on the section of OR 99 that extends from Garfield Street in South Medford to S Valley View Road at the north end of Ashland, studying how the corridor operates both now and over the future 20-year period. The plan utilizes a combination of intelligent transportation systems, advanced traffic modeling, and data-driven analysis to optimize traffic flow, improve safety, and reduce congestion along the OR 99 corridor consistent with a District Highway classification.

The plan establishes mobility and management standards based on OHP policies. Baseline conditions and identified deficiencies were evaluated to provide goals regarding the improvement of mobility, safety, multi-modal connectivity, and livability within the corridor. The identified deficiencies include limited or substandard sidewalks and bike facilities for much of the corridor and high-crash interactions on OR 99 at South Stage Road. The plan offers future improvements to such deficiencies and other management actions to protect and extend the life of the corridor while providing incremental highway improvements.

The Access Management Plan (AMP) is an element of the corridor plan that describes actions that may be triggered as land use changes occur, as future highway improvements are implemented and as highway safety and operational issues arise. Located in the AMP is a list of planned projects necessary for the improvement and maintenance of the corridor. These projects are divided into transportation system management strategies (TSMS), corridor improvement projects, and other system improvement projects. The projects planned within the South Stage Extension project scope are as follows:

- **TSMS1** – OR Corridor (8.56-17.02): Develop a traffic operations emergency plan (high priority).
- **TSMS2** – OR Corridor (8.56-17.02): Conduct speed zone studies to reassess posted speeds when lane restriping, lane conversion, or pedestrian crossing projects are implemented (ongoing).
- **TSMS3** – OR 99/South Stage Road Intersection (9.79): Modify traffic signal timing to add protected left-turn phases in the east-west direction (high priority).
- **TSMS4** – OR 99 – Northridge Terrace to Coleman Creek (10.58-11.04): Evaluate potential access modifications to address high crash frequency (high priority).
- **1** – OR 99 – Garfield Street to Charlotte Ann Road (8.56-8.75): Construct sidewalks along the west side of OR 99 (medium priority).
- **2** – OR 99 – Charlotte Ann Road to Coleman Creek (8.75-11.03): Modify striping of the existing five-lane roadway cross-section to add bike lanes (high priority).
- **3** – OR 99 – Charlotte Ann Road to Coleman Creek (8.75-11.03): Construct continuous sidewalks on both sides of OR 99 (medium priority).

- **4** – OR 99 – Charlotte Ann Road to Coleman Creek (8.75-11.03): Install median islands at multiple locations where pedestrian crossings occur (medium priority).
- **5** – OR 99/Northridge Terrace Intersection (10.58): Improve turning radius on southeast corner and sight distance for exiting traffic (medium priority)
- **6** – OR 99/Coleman Creek Culvert (11.03-11.04): Modify striping of existing roadway to add bike lanes and sidewalks while maintaining four through travel lanes (interim) (high to medium priority).
- **7** – OR 99/Coleman Creek Culvert (11.03-11.04): Replace culvert and widen roadway to add bike lanes and sidewalks (high to medium priority).
- **20** – Bear Creek Greenway (8.56-17.02): Enhance connections to OR 99 throughout corridor with wayfinding signage for other amenities (high priority).

Project Relevance: The South Stage Extension Plan will use the OR 99 Plan as a resource for transportation decision-making involving OR 99, particularly those decisions affecting the relationship between planned projects of the OR 99 Plan and the corresponding surround streets/areas.

Local Plans

ROGUE VALLEY TRANSIT DISTRICT 2040 TRANSIT MASTER PLAN (2019)

The Rogue Valley Transit District (RVTD) 2040 Transit Master Plan reviews the transit services and facilities provided in the Rogue Valley Service Area. The plan identifies near-, mid-, and long-term services for the existing RVTD service area and the surrounding areas into which the RVTD may extend. The plan provides a framework for providing transit and transit-related services to the Rogue Valley and guides decisions by RVTD staff related to identifying new services, establishing policies, and achieving significant progress in RVTD departments.

The plan identifies the southwest corner of the intersection of E. Barnett Road and N Phoenix Road as a transit-oriented development area. The plan also lists areas within Rogue Valley with the greatest growth projections, including east and north Medford and the area north of Phoenix. A list of planned system enhancements are as follows:

- Increase RVTD routes to 15-minute or 20-minute frequency.
- Increase weekday service by 2 to 4 additional hours.
- Increase Saturday service to weekday service hours.
- Add Sunday service.

RVTD plans to add new transit routes on a short-, mid-, and long-term basis. Among those proposed is a short-term planned bus route, Route 1X, traveling along I-5 from the I-5 and Garfield Street intersection to south Ashland. Route 9 is a mid-term bus route planned to travel

along N Phoenix Road, across OR 99, to South Stage Road. Route 23 is a proposed mid-term 14.2-mile bus route that provides service throughout southwest Medford, including along South Stage Road. Route 10X is a proposed long-term proposed high-capacity transit corridor along OR 99.

Project Relevance: The RVTD 2040 Transit Master Plan will act as a resource for the planned/existing transit projects within the scope of the South Stage Extension Plan. The plan provides information valuable for understanding the impact of the South Stage Extension Plan on transit projects within Rogue Valley as well as important aims of the transit district that will be supported throughout project development and implementation.

ROGUE VALLEY ACTIVE TRANSPORTATION PLAN (2021)

Engineers and planners working within Rogue Valley utilize the Rogue Valley Active Transportation Plan (RVATP) as a guiding document for investment and active transportation facility design on their respective facilities. The vision, goals, objectives and policies, network and classifications, design guidance and needs, priorities, and implementation plan in the RVATP will direct the Rogue Valley Metropolitan Planning Organization (RVMPO) in implementing active transportation networks in the region. The RVATP provides an implementation plan including local adoption, project funding, partnerships, and programming to support and encourage walking and biking, which are key goals of the plan.

Ongoing and planned projects are listed in the RVATP and categorized as low, medium, or high priority according to an analysis based on factors such as safety, existing conditions, connectivity, equity, and opportunity. Projects numbered 30, 34, 38, 42, 48, 72, and 80 are located within the study area of the South Stage Extension Plan. The South Stage Extension Plan is listed as Project 71 and is categorized as a low-priority project. Projects that involve Black Oak Drive (48), N Phoenix Road (71), and South Stage Road – E California Street (80) are identified as medium-priority projects. High-priority projects include 30, 34, 38, and 42. The plan includes the conceptual design for Project 38, which is the planned development of a shared-use path in the 0.5-mile stretch from Garfield Street to Lowry Lane.

Goal 1 of the RVATP involves creating a system that is safe and comfortable for people walking and biking, and where people feel secure using streets and paths. Objectives 1.1, 1.2, and 1.3 emphasize the elimination of fatal and serious-injury crashes involving people walking and biking by designing streets and paths to ensure safety and security, including the incorporation of pedestrian-scale lighting along active transportation routes. The objectives listed in the RVATP also include recognizing the benefits for all road users and improving and maintaining access for people with disabilities to facilities around the region (Objective 2.5). Community vitality is highlighted in Objective 4.1, which is to create routes with wayfinding signage that connect people to the regions' parks, natural areas, and scenic attractions.

Project Relevance: The plans and policies of the RVATP are influential for the South Stage Extension Plan as they enable understanding of the designated routes, connectivity priorities, and infrastructure requirements, ensuring compliance with established guideline and promoting smooth integration of the extension within the active transportation network.

MEDFORD COMPREHENSIVE PLAN (2016)

The Medford Comprehensive Plan is a generalized, coordinated land use map and policy statement for Medford that interrelates all functional and natural systems and activities relating to the use of lands, including sewer and water systems, transportation systems, educational facilities and natural resources, and air and water quality management programs. The plan establishes a land use planning process that can be used to guide future and current decisions and actions related to land use.

Environmental Element

The Environmental Element of the Medford Comprehensive Plan provides goals, policies, and implementation strategies for improving and maintaining environmental quality in Medford as well as accommodating continued growth. The plan emphasizes the need for preventative implementation strategies rather than corrective measures in land use planning. The environmental portion of the plan further addresses the physical characteristics of the region, natural resources, air quality, and water pollution. Policy 1-A states that the City of Medford will emphasize the minimization of the negative effects of solar radiation, such as the effect that concrete and asphalt surfaces have on summer air temperature. Supporting Goal 3 of the plan, Policy 3-A ensures the adoption of regional air quality improvement strategies to maintain compliance with the National Ambient Air Quality Standards. To achieve and maintain water quality in Medford 's waterways, Policy 5-B states that the City of Medford shall implement measures to reduce polluted surface water runoff into the storm drainage system.

Public Facilities Element

Chapter 8 of the plan, regarding public facilities, states in Policy 1-B that the City of Medford encourages other agencies that are responsible for planning and/or provision of public facilities and services to coordinate planning consistent with Medford's Comprehensive Plan. Such coordination should ensure, to the greatest extent possible, the provision of public schools, public health services, justice service, solid waste management, energy and communication services, and transit services. Policy 2-B states that the City of Medford will ensure that new development does not create public facility demands that diminish the quality of the previously stated services. The City of Medford follows regulations set by the National Pollutant Discharge Elimination System (NPDES) program. The NPDES program requires the U.S. Environmental Protection Agency (EPA) to address discharges from urban stormwater. All development is required to incorporate stormwater detention to reduce downstream impacts due to increased

peak flows. All development is also required to incorporate stormwater quality treatments to meet Medford's obligations under the NPDES Municipal Separate Storm Sewer System Phase II permit and Total Maximum Daily Load Implementation plan.

Neighborhood Element

A major component of the Medford Comprehensive Plan Neighborhood Element is the Southeast Plan. The Southeast Plan provides for a centrally located commercial area in the space surrounding the intersection of Barnett Road and N Phoenix Road followed by an area of housing and community space, such as an area with a park, grocery store, community center, and fire station. A variety of housing is planned within the southeast area, including large, standard, and small single-family lots; multiple-family housing; and retirement housing. Planning studies surrounding the Southeast Plan involved finding ways to reduce future auto traffic within the area. The resulting Southeast Plan has features intended to support this goal and create a more livable community.

Regional Plan Element

The Greater Bear Creek Valley Regional Plan (GBCVRP) was developed by the cities of Ashland, Central Point, Eagle Point, Medford, Phoenix, and Talent, along with Jackson County, to establish goals and policies that support the long-term urbanization needs of the region, specifically within the category of land use. The GBCVRP identifies a portion of the region east of I-5 and west of N Phoenix Road immediately adjacent to the future South Stage Road east-west connector as an urban reserve subarea (MD-5). The area south of the South Stage Road extension is planned as a regional employment campus to meet the unique site requirements of larger regional employers. MD-5, when urbanized, will actuate the South Stage Road extension, which the plan states is a necessity in a largely urbanized area lacking east-west circulation due to obstruction from I-5. The plan discusses the potential adverse effects of the South Stage Road extension due to its planned crossing of Bear Creek.

Project Relevance: The Medford Comprehensive Plan provides a thorough description of Medford's plans and policies that will be considered throughout the South Stage Extension Plan.

MEDFORD TRANSPORTATION SYSTEM PLAN (2018)

The Medford Transportation System Plan (TSP) establishes short and long-term goals for development within the City's transportation system. The plan incorporates, evaluates, and offers improvements to meet both future and existing needs. The document describes a 20-year plan to guide transportation decisions as development occurs, ultimately to enhance general mobility throughout Medford. The plan describes necessary actions that are relevant to the following goals:

- **Safety and Public Health** – Improve safety for users of all modes of transportation and be a public resource that supports public health in the community.
- **Economic Development** – Enhance economic development and vitality within the City and throughout the region.
- **Livability** – Design and construct transportation facilities to enhance the livability of the City’s neighborhoods and business centers.
- **Connectivity** – Achieve connectivity appropriate for planned land uses in the area for all modes that is well connected to the regional system.
- **Financing** – Optimize funding resources so that transportation investments are fiscally sound and economically stable.
- **Environment** – Reduce environmental impacts from transportation.

The TSP includes planned projects within the City of Medford, including Projects P19 and P20 under the Tier 1 category. Both sites are located east of I-5 and south of E Barnett Road. Projects P19 and P20 are short-term projects that involve the creation of respective multi-use paths. Further projects described in the plan include Projects 677 and 678 under the Tier 2 category. Project 677 plans to construct a new major collector roadway north of South Stage Road extension. Project 678 involves upgrading the minor collector located south of the South Stage Road extension to minor collector standards.

The TSP includes a section dedicated to the South Stage Overcrossing/Extension/Interchange, describing the project’s goals of providing an east-west connection between southeast and southwest Medford and allowing for travel within southeast Medford without reliance on I-5. The plan also provides an overview of several action items relating to the objectives associated with each goal identified above. Action Item 11-a addresses the City’s intention to work with both private and public sector partners to complete the proposed major street network found in the plan, prioritizing the completion of regionally significant transportation projects such as the South Stage Overcrossing/Extension/Interchange. Under the TSP, Medford offers a description of the Rogue Valley Commuter Rail Project along with tasks that the City plans on completing to support safety surrounding the Central Oregon and Pacific Railroad mainline. One of these tasks is the improvement of the at-grade railroad crossing on South Stage Road.

Project Relevance: The relevant plans and policies of the Medford TSP will be considered in the development of the South Stage Extension Plan. Projects 537A and 537B of the Medford TSP call specifically for the South Stage Extension project to contemplate an overpass and potential I-5 interchange. Further, the TSP calls for the extension to be a Minor Arterial under an overpass and Major Arterial if an interchange is introduced. One of the anticipated outcomes of the South Stage Extension Plan is an update to the Medford TSP to incorporate the final recommendations.

MEDFORD NATURAL HAZARD MITIGATION PLAN (2022)

The Medford Natural Hazard Mitigation Plan (NHMP) is a tool for Medford to use to mitigate the impacts of natural hazards by identifying resources, information, and strategies for risk reduction. It is also intended to guide and coordinate mitigation activities through the City.

The NHMP includes goals that Medford residents and public and private partners can use to guide their work to reduce the risk from natural hazards and to identify if the plan is successful. The goals include :

- **Goal 1:** Prevent personal injury, loss of life, and damage to property and the environment from natural hazards.
- **Goal 2:** Mitigate the risk to emergency service workers responding to the effects of hazards on people, property, and the environment.
- **Goal 3:** Promote public awareness and participation regarding understanding of, and preparation for, natural hazards and the risk they present to quality of life and economic vitality.
- **Goal 4:** Form partnerships with private and public sector agencies, businesses, and organizations and incorporate information on known hazards and future climate projections to further comprehensive and land use planning policies, decisions, and implementation.
- **Goal 5:** Support the diversification, expansion, and stabilization of local economies by preventing or reducing business losses and community assets resulting from natural hazards.
- **Goal 6:** Mitigate the inequitable impacts of natural hazards by prioritizing and directing resources and investments to build resilience for the most vulnerable populations and the communities least able to respond and recover.

The NHMP also contains action items, or detailed recommendations for activities that local departments, residents, and other stakeholders could engage in to reduce risk. The action items are prioritized to focus attention and resource availability upon an achievable set of high leverage activities over the next 5 years.

Project Relevance: The South Stage Extension Plan will consider the goals and action items identified in the NHMP in developing and evaluating alternatives, including potential benefits various alternatives may have on enhancing mitigation efforts following a natural hazard.

ITS REGIONAL PLAN (2016)

The Rogue Valley Regional Intelligent Transportation Systems (ITS) Plan is a framework implemented to integrate and coordinate advancements in technologies for efficient transportation management. ITS encompass a broad range of strategies that optimize the safe, efficient, and reliable use of both existing and planned transportation systems for all modes. The plan provides a 10-year roadmap for improving the regional transportation system by

optimizing safety, addressing congestion hotspots, and providing key information to travelers. The key elements of this plan include the following:

- **Vision, Goals, and Operations Objectives** – Guides the selection and implementation of strategies for managing and operating the transportation system.
- **ITS Architecture** – Provides the conceptual framework for the deployment and integration of ITS in the Rogue Valley region.
- **Operational Concept** – Describes the current and future roles and responsibilities of regional transportation and emergency management agencies and summarizes how agencies and their systems work together in the present and future to deliver ITS services.
- **Deployment Plan** – Describes the strategies selected by the region to address needs, including lead agencies; benefits; and estimated costs for implementation, operations, and maintenance.

The plan outlines a policy for project design and implementation. Within the design phase of a project, the plan emphasizes the use of design documentation. The ITS Regional Plan suggests using documents prepared in the design phase of a project to construct and implement ITS within the construction/implementation phase.

Section TM06 of the plan discusses the congestion and reliability issues around the south Medford Interchange. The plan suggests the following solutions for consideration: queue warning, variable speeds, enhanced traveler information, ramp metering, and adaptive signal timing. Section FM02 emphasizes the need to install detection at traffic signals along designated freight routes that identify approaching heavy vehicles and speeds, and either extends green or conflicting red to prevent collisions. A key location identified for this implementation is OR 99 in downtown Medford.

Project Relevance: The ITS Regional Plan offers critical insight into the implementation of advanced technologies within a region’s transportation infrastructure. The objectives, policies, and potential solutions offered in the plan will be considered in developing the South Stage Extension Plan.

I-5 MEDFORD VIADUCT PLANNING AND ENVIRONMENTAL STUDY (2019)

The I-5 Medford Viaduct is located between Mileposts 28.3 and 28.9, approximately halfway between the north and south Medford interchanges. The structure holds four lanes and stretches 3,200 feet, carrying I-5 over several streets and Bear Creek. The I-5 Medford Viaduct Planning and Environmental Study identified possible solutions to the viaduct’s current seismic safety and roadway cross-section deficiencies. The study focused on re-route, re-build, and retrofit options, ultimately identifying retrofit as the recommended alternative. The study team recommended widening the viaduct from OR 66 to 94 feet at the east end of the structure and

providing two 12-foot travel lanes, a 12-foot outside shoulder, and an 8-foot inside shoulder in each direction.

The study identified that 53 crashes were reported from 2010-2014 on I-5 in the vicinity of the north and south Medford interchanges. The study also found that 55% of southbound trips originating from the north Medford interchange exited at the south Medford interchange. Similarly, 40% of northbound trips originating from the south Medford interchange exited at the north Medford interchange. Decreasing these local trips would reduce vehicle exposure, decrease crashes, and reduce v/c ratios along I-5 and the Medford viaduct.

Project Relevance: Trends and occurrences recorded within the I-5 Medford Viaduct Planning and Environmental Study can be used to inform decision-making throughout the South Stage Extension Plan.

CENTENNIAL TRANSPORTATION IMPACT STUDY (2022)

Centennial Golf Course Properties submitted a development application to the City of Medford to re-zone and re-develop the Centennial Golf Club located east of I-5 and north of the future South Stage Road extension. A Master Plan was developed to capitalize on the area's extent, and the Centennial Golf Course Properties team requested several land use approvals for the full Master Plan concept.

The full Master Plan is intended to be built-out in several phases over an approximately 17-year span. As such, the Transportation Impact Study (TIS) includes the full analysis and ultimate build-out recommended transportation mitigation measures. As part of the analysis, a trip generation sensitivity analysis was also presented, organized by phases, to identify the timing of specific mitigation recommendations. The results of the study indicate that the Centennial Master Plan public utility district is consistent with the requirements of the TPR and applicable City of Medford transportation-related approval criteria. The recommendations include the construction of South Stage Road along the property site frontage, a new traffic signal at the Phoenix Road/Juanipero Way intersection, improvements to the N Phoenix Road/South Stage Road intersections, as well as improvements at several other intersections adjacent to the site.

Relevance: The South Stage Extension Plan will consider the findings and recommendations of the Centennial Transportation Impact Study during the development and evaluation of transportation system alternatives, particularly those east of I-5.

ROGUE VALLEY REGIONAL TRANSPORTATION PLAN (2021)

The Rogue Valley Regional Transportation Plan (RTP) is a long-range, multi-modal plan containing the strategies and actions required to achieve the region's transportation goals over a 4-year period. The plan contains specific information useful to creating an integrated

transportation system that supports the safe and efficient movement of people and goods. In addition to strategies, the plan contains details about projects and funding.

Section 8.3 of the RTP lists all projects by jurisdiction and identifies planned regional transportation actions that will occur in the area through 2045. The section further describes how the listed projects work to meet the goals and policies of the RTP. Project PHX-001 is a medium-term project within the City of Phoenix involving the construction of a new street network with an approximate length of 5.8 miles located in the urban reserve areas PH-5 and PH-10. Project JCRV-031 is a long-term project in which Jackson County is planning to widen N Phoenix Road in Medford to rural arterial standards with turn lanes. The plan also includes projects headed by ODOT. Project ODRV-009 plans the replacement of the culvert located at Coleman Creek on OR 99 as well as the addition of a sidewalk and bike facilities at the culvert. The plan also contains information about Project ODRV-026, which includes the addition of sidewalks and bike lanes along OR 99 from Birch Street to Garfield Street.

The plan offers goals followed by policies, potential actions, and performance indicators for the purpose of guiding transportation decisions throughout the region. Under Goal 1 (“Design, develop, and support a balanced multi-modal transportation system which will address existing and future needs”), Policy 1-2 emphasizes the utilization of design standards to encourage transit, pedestrian, and bicycle users. Policy 3-2 highlights the need to plan and support street and pathway connectivity to support the goal of identifying and utilizing transportation investments to support livable communities. The plan identifies Policy 5-2, stating the need to optimize intersection and interchange design as necessary to achieve the goal of planning and developing transportation infrastructure that maximizes efficient use.

Project Relevance: The relevant plans and policies described in the Rogue Valley RTP will be used as a resource to achieve the transportation goals of the region within the South Stage Extension Plan.

JACKSON COUNTY TRANSPORTATION SYSTEM PLAN (2023)

The Jackson County Transportation System Plan (TSP) is a comprehensive framework that describes the vision, policies, and guidelines for the county’s transportation infrastructure. It serves as a guide for the development, maintenance, and enhancement of transportation facilities, including roads, highways, transit systems, and active transportation networks within Jackson County. The TSP integrates data-driven analyses, community input, and established transportation principles to create a cohesive transportation plan that promotes mobility, safety, and accessibility as well as regional-specific goals. The main goals of the county include:

- **Livability**—Develop and maintain a safe multi-modal transportation system that meets the needs of the county while minimizing adverse impacts on the environment.

- **Modal Components**—Plan an integrated transportation system that maintains existing facilities and responds to the changing needs of the county.
- **Integration**—Provide an open and balanced process for planning and developing a transportation system that integrates land use, financial, and environmental planning.

Included in the TSP is a section describing the Bear Creek Greenway (BCGW), a 20-mile shared-use path connecting Ashland, Talent, Phoenix, Medford, and Central Point. The county plans to improve connections to the trail as well as extending the trail into new areas. The county also plans to modify traffic signal timing and provide protected left-turn phasing in the east-west direction of the OR 99/South Stage Road intersection (Project No. TSM3).

A section of the TSP is dedicated to the S Stage Road extension, describing the purpose and necessity of the project. The plan states, *"preservation and recognition of this connection is important now to protect what is likely to be a critical connection at some point in the future."* The TSP's design standards require bicycle lanes and sidewalks on all urban arterial, collector, and local streets to support multi-modal transportation throughout the county. Jackson County identified S Stage Road as having bicycle level of traffic stress deficiencies (with a given rating of LTS 4) due to the road's shoulder being too narrow for roadway conditions.

Project Relevance: The Jackson County TSP will serve as a guiding framework and reference document to inform relevant decisions within the South Stage Extension Plan.

JACKSON COUNTY SEISMIC LIFELINE EVALUATION (2023)

The Jackson County Seismic Lifeline Evaluation provides an evaluation of the County's identified emergency response routes that can be used for response and recovery activities after a major earthquake. The evaluation is based on data compiled by Jackson County, the Oregon Department of Geology and Mineral Industries (DOGAMI), and ODOT, and provides a preliminary evaluation of the proposed County Emergency Transportation Routes (ETR).

The primary objective of the evaluation was to identify the primary ETRs, including routes developed by ODOT in the Oregon Seismic Lifeline Routes identification project (state lifeline routes) against new and expanded datasets to assist the County with prioritizing spending for bridge improvements on County ETRs. The County identified 41 ETRs that connect critical and isolated areas to county and state resources as well as to adjacent jurisdictions. The routes were tiered by importance according to ODOT guidance. Per the evaluation, I-5, OR 99, Foothill Road/N Phoenix Road, and Garfield Street are identified as Tier 1 ETRs and the California/South Stage Road intersection is identified as a Tier 2 ETR. The evaluation also identifies vulnerabilities along each route, including bridges, floods, landslides, and liquefaction.

Project Relevance: The South Stage Extension Plan will consider the findings of the Jackson County Seismic Lifeline Evaluation in developing and evaluating alternatives, including how the alternatives can support and/or improve the ETRs identified in the evaluation.

CITY OF PHOENIX TRANSPORTATION SYSTEM PLAN (2016)

The City of Phoenix TSP is a structured guide that describes the long-term and short-term visions, objectives, and plans for the City's transportation system over the next 20 years. The document provides a list of improvement projects and a plan for implementing the projects. The Phoenix TSP was developed in compliance with the requirements of the Oregon TPR and to be consistent with other regional, state, and local plans.

The TSP includes several planned projects to improve the functionality and efficiency of existing transportation structures. Under Section 3.2.2., the City describes a plan to alleviate some of the crash and congestion concerns at OR 99 and N Phoenix Road by removing eastbound movements and adding capacity to northbound and southbound movements. In addition, the City plans to add pedestrian crossings, sidewalks, ramps, and a bus pullout at the intersection of N Phoenix Road and OR 99. Project ODOT4 of the TSP is a short-range plan to realign N Phoenix and Luman and signalize the ramps at those locations.

Project Relevance: The development of the South Stage Extension Plan will include consideration of the City of Phoenix TSP and its corresponding plans and policies.

I-5, EXIT 24, INTERCHANGE AREA MANAGEMENT PLAN (2011)

The I-5, Exit 24, Interchange Area Management Plan (IAMP) outlines ODOT's plan to replace the existing Fern Valley interchange with one that will effectively accommodate projected traffic volume growth through at least 2030. Located on I-5 approximately 24 miles north of the Oregon/California border, in the City of Phoenix and Jackson County, the Fern Valley interchange accesses the Phoenix area via Fern Valley Road. ODOT developed this IAMP to comply with its own policy regarding the preparation of plans for significant modifications to existing interchanges. The policy aims to maximize the most value from the large expenditure of tax dollars required to construct the new interchange. The purposes of the IAMP are listed below.

- Preserve the capacity of the proposed interchange for, at minimum, the initial 20 years of its design life and the capacity of N Phoenix Road, Fern Valley Road, and OR 99.
- Ensure the safe and efficient operation of the new interchange and the surrounding roadways (mentioned above) and protect their functionality, operations, and safety.

The I-5, Exit 24 IAMP includes two components: a second westbound left-turn lane at the intersection of N Phoenix Road and the S Phoenix Road Extension, and a four-way stop at the intersection of Fern Valley Road and S Phoenix Road. The v/c ratio at the interchange will comply with applicable OHP standards. However, the v/c ratio at the intersection will exceed the applicable OHP standard by the year 2030, which signaled the additional left-turn lane mentioned above. Adding the second westbound left-turn lane will cause the forecasted v/c ratio to meet applicable OHP standards.

Project Relevance: The identified deficiencies and projected outcomes highlighted by the plan offer insight on safety and efficiency-oriented interchange implementation strategies that will be considered by the Project Team.

I-5, EXIT 27, INTERCHANGE AREA MANAGEMENT PLAN (2023)

The I-5, Exit 27 IAMP is a document used to plan and manage the function of the South Medford Single Point Urban Interchange (SPUI) located at Garfield Street through the year 2045. The plan includes long-range needs of the interchange, roadway improvements, alternative mobility targets (AMTs), and travel demand management (TDM).

The plan updates the 2007 South Medford IAMP to reflect current traffic operations in Base Year 2020 and forecasted traffic operations through 2045. The Base Year 2020 traffic analysis illustrates an existing deficiency in the South Medford SPUI southbound off-ramp, causing traffic overflow onto the I-5 mainline. This deficiency presents an increased risk of collision at the location. Year 2045 analysis demonstrates increased traffic volumes at the South Medford SPUI with consequential adverse effects on the safety and efficiency of the interchange. Through traffic analysis, the plan determines that the predicted increase in traffic at the SPUI can be correlated with an increase in short local trips on I-5.

The IAMP offers possible improvements to combat the increase of traffic at the SPUI and mitigate safety hazards while improving traffic flow. Improvement M3b involves the addition of dual northbound right-turn lanes at the Barnett Road/Highland Drive intersection. Improvements M5a2 and M5b both aim to widen the South Medford SPUI off-ramps. Project M8b identifies the need to restripe the east leg of the OR 99/Garfield Street intersection into left, left/through, and through/right lanes.

Project Relevance: The I-5, Exit 27 IAMP will be considered by the Project Management Team, particularly regarding the projected performance of the South Medford interchange in future years.

BEAR CREEK GREENWAY MANAGEMENT PLAN (2006)

The Bear Creek Greenway is a 20-mile, paved, multi-use trail that connects the cities of Ashland, Talent, Phoenix, Medford, and Central Point. The greenway runs continuously from the Ashland Dog Park to the Dean Creek Frontage Road near the Seven Oaks interchange on I-5, north of Central Point. The trail provides a separate route from cars with only two at-grade road crossings. The trail parallels I-5, OR 99, and Bear Creek.

The Bear Creek Greenway Management Plan provides the background and framework for the Bear Creek Greenway Joint Powers Agreement, which guides maintenance, management, and investments based on current needs, as well as identifies roles and responsibilities for the

jurisdictions. The plan designates each city's and the county's responsibilities for segments of the trail, designates desired levels of service, identifies specific projects, and identifies projects that are facility-wide in nature (signage, amenities, etc.). The City of Medford has management responsibilities over the segment of the Bear Green Greenway within the study area.

Project Relevance: The South Stage Extension Plan will consider potential impacts to the Bear Creek Greenway along with maintenance and improvement needs.