

I-5 BOONE BRIDGE REPLACEMENT PROJECT

DRAFT Enhanced Investment Scenario Review Report
OAR 660-012-0830

October 2024

K21541

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0 EXECUTIVE SUMMARY

0.1 Enhanced Review of Select Roadway Projects

The I-5 Boone Bridge Replacement Project (“Project”) is exploring solutions to provide a new seismically resilient bridge crossing of the Willamette River on I-5 to support current and future vehicle, transit, pedestrian and bicycle traffic needs and safety. The Oregon Department of Transportation (ODOT) initiated a Planning and Environmental Linkages (PEL) study to begin early consultation and collaboration with the Federal Highway Administration (FHWA), other Agency partners, Tribes, and the public to improve planning process efficiencies and position the project for the next phases of development under the National Environmental Policy Act process.

As part of the Project, an earthquake-ready bridge would be constructed, bicycle and pedestrian facilities would be added, and a southbound auxiliary lane greater than one-half mile is proposed between the I-5: Wilsonville Road Interchange entrance ramp at MP 283 and the I-5: OR 551 Interchange exit ramp at MP 282. The location of the Project is within a Metropolitan Planning Organization (MPO) boundary with a population greater than 50,000. Because of the location and inclusion of the auxiliary lane, Oregon Administrative Rule (OAR) 660-012-0830 (Enhanced Review of Select Roadway Projects) applies.

The enhanced review process described in OAR 660-012-0830 requires Cities and/or Counties to review certain proposed facilities (in this case, the facility referenced below is only the southbound auxiliary lane) before authorizing them as a planned project or unconstrained project in their Transportation System Plan (TSP). Part of this review includes an analysis exploring enhanced alternative investments in bicycle and pedestrian systems, the public transportation system, transportation options programs, and system pricing, as summarized in this report.

0.1.1 Process

The enhanced review process and how it was completed for this project are summarized in the table below.

	STEP	PROCESS
	1. Initiate the enhanced review process	Boone Bridge project management team initiated process in Spring 2024.
	2. Designate the project limits and characteristics of the proposed facility	Established in the PEL study.
	3. Designate a facility impact area and determine affected jurisdictions	Determined at a meeting with City of Wilsonville, Clackamas County and ODOT on March 15, 2024.
	4. Conduct an engagement-focused equity analysis	Initiated with Step 1 and informs steps 3 - 6.
	5. Develop a public involvement strategy	In coordination with PEL study and augmented to support the enhanced review process.
	6. Conduct alternatives review and provide to governing bodies	Documented with this <i>Enhanced Investment Scenario Review Report</i>
Still to be completed	7. Select an alternative or set of alternatives OR choose to complete an authorization report for the project.	Planned Wilsonville City Council meeting October 21, 2024
	8. Publish the authorization report and provide to governing bodies and the public	To be determined.
	9. Add the proposed project to the list of street and highway system projects in the TSP.	To be determined.

0.2 Recommendations

The intent of the enhanced review process is to provide the City of Wilsonville and Clackamas County with essential information to guide decision-making as it relates to aligning transportation investments with Statewide goals to reduce climate pollution, provide more transportation and housing choices, and promote more equitable land use planning outcomes.

The findings of the enhanced review found that the addition of a southbound auxiliary lane is not expected to result in changes in land use and the cumulative increase in induced vehicle miles travel (VMT) per capita over the first 20 years of service, is approximately 0.05%. This level of increase is so small it may be considered negligible.

The enhanced investment scenario review also analyzed potential investments in the following areas as required by OAR 660-012-0830:

- Pedestrian and Bicycle System: Connection across the Willamette River (e.g., French Prairie Pedestrian/Bicyclist Bridge facility or a protected, multi-use facility on the Boone Bridge)
- Public Transportation: Bus service between Wilsonville and Woodburn and Bus on Shoulder
- Transportation Demand Management: Additional park-and-ride locations and enhanced carpool/vanpool
- System Pricing: Highway facility pricing and Wilsonville parking pricing

The findings of the analysis indicate investments in alternatives to the southbound auxiliary lane are not able to substantially meet the need of the southbound auxiliary lane to address safety and improve congestion.

The recommendation is to proceed with an authorization report. “Authorization” in this context means that the City of Wilsonville has approved the southbound auxiliary lane facility to move forward, which will eventually culminate with the inclusion of the southbound auxiliary lane as a project in the unconstrained and/or financially constrained project list of the updated TSP. The timing of the TSP update is at the discretion of the City of Wilsonville.

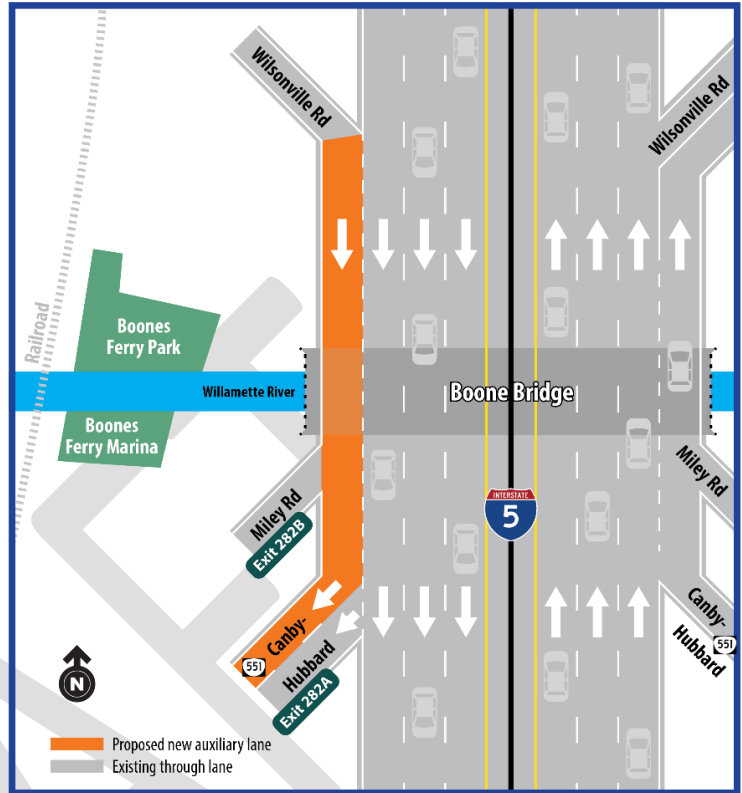


Figure 1. Proposed Facility: Southbound Auxiliary Lane

1 CONTEXT

1.1 Background

The I-5 Boone Bridge Replacement Project (“Project”) is exploring solutions to provide a new seismically resilient bridge crossing of the Willamette River on I-5 to support current and future vehicle, transit, pedestrian and bicycle traffic needs and safety. The Oregon Department of Transportation (ODOT) initiated a Planning and Environmental Linkages (PEL) study to begin early consultation and collaboration with the Federal Highway Administration (FHWA), other Agency partners, Tribes and the public to improve planning process efficiencies and position the project for the next phases of development under the National Environmental Policy Act process. The Oregon Department of Land Conservation and Development (DLCD) implemented the Climate-Friendly and Equitable Communities program (CFEC) rulemaking in November 2023 after the PEL study had commenced. CFEC aims to reduce climate pollution, provide more transportation and housing choices, and promote more equitable land use planning outcomes. For facilities owned by ODOT and to help local governments implement the program, ODOT is providing support to communities via direct staff-to-staff assistance, funding, advice and guidance. As it relates to this project, technical and communications support was made available to leverage the applicable public engagement and analysis work of the PEL process to satisfy the requirements of the Oregon Administrative Rules (OAR), as summarized in the following section.

1.2 Enhanced Review of Select Roadway Projects

As part of the Project, a southbound auxiliary lane greater than one-half mile is proposed between the I-5: Wilsonville Road Interchange entrance ramp at mile post (MP) 283 and the I-5: OR 551 Interchange exit ramp at MP 282. The location of the Project is within a Metropolitan Planning Organization (MPO) boundary with a population greater than 50,000. As such, Oregon Administrative Rule (OAR) 660-012-0830 (Enhanced Review of Select Roadway Projects) applies.

The enhanced review process (see Figure 2) requires Cities and/or Counties to review certain proposed facilities (in this case, the southbound auxiliary lane) before authorizing them as a planned or unconstrained project in their Transportation System Plan (TSP). Part of this review includes an alternatives analysis that includes exploring enhanced investments in bicycle and pedestrian systems, the public transportation system, transportation options programs and system pricing. This report summarizes the method and findings for steps 1 through 6 of the review process shown in Figure 2.



Figure 2. Enhanced Review Process

1.3 Problem Statement

The Project is exploring solutions to provide a new seismically resilient bridge crossing of the Willamette River on I-5 to support current and future vehicle, transit, pedestrian and bicycle traffic needs, and safety. The following purpose, needs, and goals were developed in coordination with area government agencies, Tribes, and the general public as part of the PEL study.

1.3.1 Purpose

The purpose of the I-5 Boone Bridge Replacement project is to:

- Provide a seismically resilient interstate bridge across the Willamette River in Wilsonville, Oregon;
- address safety and operational issues and manage traffic congestion; and
- improve connections for movement of all modes: bicycles, pedestrians and vehicles (including transit and freight).

1.3.2 Needs

The I-5 Boone Bridge project is needed because:

- **The I-5 Boone Bridge is not earthquake-ready: it will not withstand a major earthquake.**
ODOT identified I-5 in the Wilsonville area as a critical lifeline route, which means it must be operational quickly after an earthquake to support emergency response and access to services. [Oregon Seismic Lifelines Identification Project (2012)] Keeping the Maritime Transportation System open for the movement of goods and services would also be important after an earthquake.
- **Traffic congestion on and approaching Boone Bridge adversely affect traveler safety, travel time reliability, freight movement, and the economy.**
The I-5 Boone Bridge, and interchanges to the north and south of it, are a traffic bottleneck. Closely-spaced on/off ramps cause drivers to merge and weave resulting in congestion and crashes that reduce travel speeds and travel-time reliability for people travelling by car and transit, or moving freight by truck. [I-5 Boone Bridge and Seismic Improvement Project (2021)] Buses on and approaching the bridge also often get stuck in traffic, reducing on-time performance.
- **Pedestrian and bicyclist travel options across the Willamette River are limited and can be uncomfortable for people to use.**
The I-5 Boone Bridge is the only Willamette River bridge crossing for over 10 miles in either direction. Pedestrians and bicyclists using the bridge must use the shoulders, and are not separated from high-speed traffic, which poses a safety concern and negatively affects the quality of the biking or walking experience [ODOT Highway Design Manual, Appendix L, Bicycle & Pedestrian Design Guide (2023), ODOT Blueprint for Urban Design (2020)].

1.3.3 Goals

The following goals are desirable outcomes of the I-5 Boone Bridge project:

- Provide an earthquake-resilient bridge that can withstand a Cascadia-level event.
- Improve driver safety, travel times, and freight movement with reduced congestion and fewer crashes.
- Increase travel options with improved transit reliability and access for people walking, bicycling, and rolling across the Willamette River.

- Manage traffic and transportation demand with improved system operations.
- Follow an equitable process for meaningful public input in project decision making.
- Support climate resiliency and the greenhouse gas emissions reduction goals of the Oregon Statewide Transportation Strategy.
- Support state, regional, and local transportation and land use planning efforts.
- Avoid and minimize environmental and cultural impacts and, as funding allows and in partnership with the appropriate agency and tribal partner(s), consider potential opportunities for enhancement or restoration of previously affected resources.

1.4 Regional Coordination

The requirements outlined in OAR 660-012-0830(3) stipulate that as part of the enhanced review, a facility impact area and affected jurisdictions be defined through coordination with all cities and counties with planning jurisdictions within two miles of the limits of the proposed facility. The limits of the proposed facility extend between the I-5: Wilsonville Road entrance ramp and the I-5: OR 551 – Canby Hubbard exit ramp, and the local agencies within two miles of those limits are the City of Wilsonville and Clackamas County.

An initial coordination meeting to confirm the facility impact area and the affected jurisdictions took place with representatives from the Oregon Department of Transportation (ODOT) and its consultant team, City of Wilsonville and Clackamas County on March 15, 2024. The outcome of the meeting was agreement of the facility impact area and affected jurisdictions, as described in the following sections. Additional coordination meetings were held at key process milestones (as summarized in Table 1), as well as ongoing email and phone communications.

1.4.1 Facility Impact Area and Affected Jurisdictions

The facility impact area was initially drafted as a one-mile buffer from the proposed facility. Through review of underserved populations and discussion at the coordination meeting, the one-mile buffer was uniformly expanded approximately 0.2 miles to include all of the Charbonneau neighborhood, a community composed primarily of older, retired residents. The proposed facility and the facility impact area are shown in Figure 3.

The affected jurisdictions include all cities and counties with planning jurisdictions in the designated facility impact area (OAR 660-012-0830(3)(e)). These include the City of Wilsonville, Clackamas County, South Metro Area Regional Transit (SMART) (operated by City of Wilsonville), and ODOT as the preparer of the documentation and road authority for the proposed facility.

1.4.2 Collaboration

The project team included the affected jurisdictions, ODOT and the consultant team and they met regularly to review project progress at key milestones and collaborate on next steps. These meetings were separate from the PEL process and allowed more focused discussion with the affected jurisdictions related to CFEC, as summarized in Table 1.

Table 1. Affected Jurisdictions Coordination Meetings

DATE	MEETING PURPOSE	OUTCOME
3/15/2024	Review Climate-Friendly and Equitable Communities (CFEC) requirements (OAR 660-012-0830), draft Facility Impact Area and anticipated affected jurisdictions.	<ul style="list-style-type: none"> Expand Facility Impact Area boundary Establish affected jurisdictions (add SMART)
6/4/2024	<ul style="list-style-type: none"> Review revised investment package Coordinate with Wilsonville on local engagement (focus group questions) Coordinate previous planning efforts/analysis related to proposed investment scenarios 	<ul style="list-style-type: none"> Publish Boones Ferry Messenger Article Set date for City Council meeting Review options for focus groups and tabling events
Week of 8/19/2024	Review analysis results of <i>Enhanced Investment Scenario Review Report</i> .	Feedback to inform recommendations included in the <i>Enhanced Investment Scenario Review Report</i>

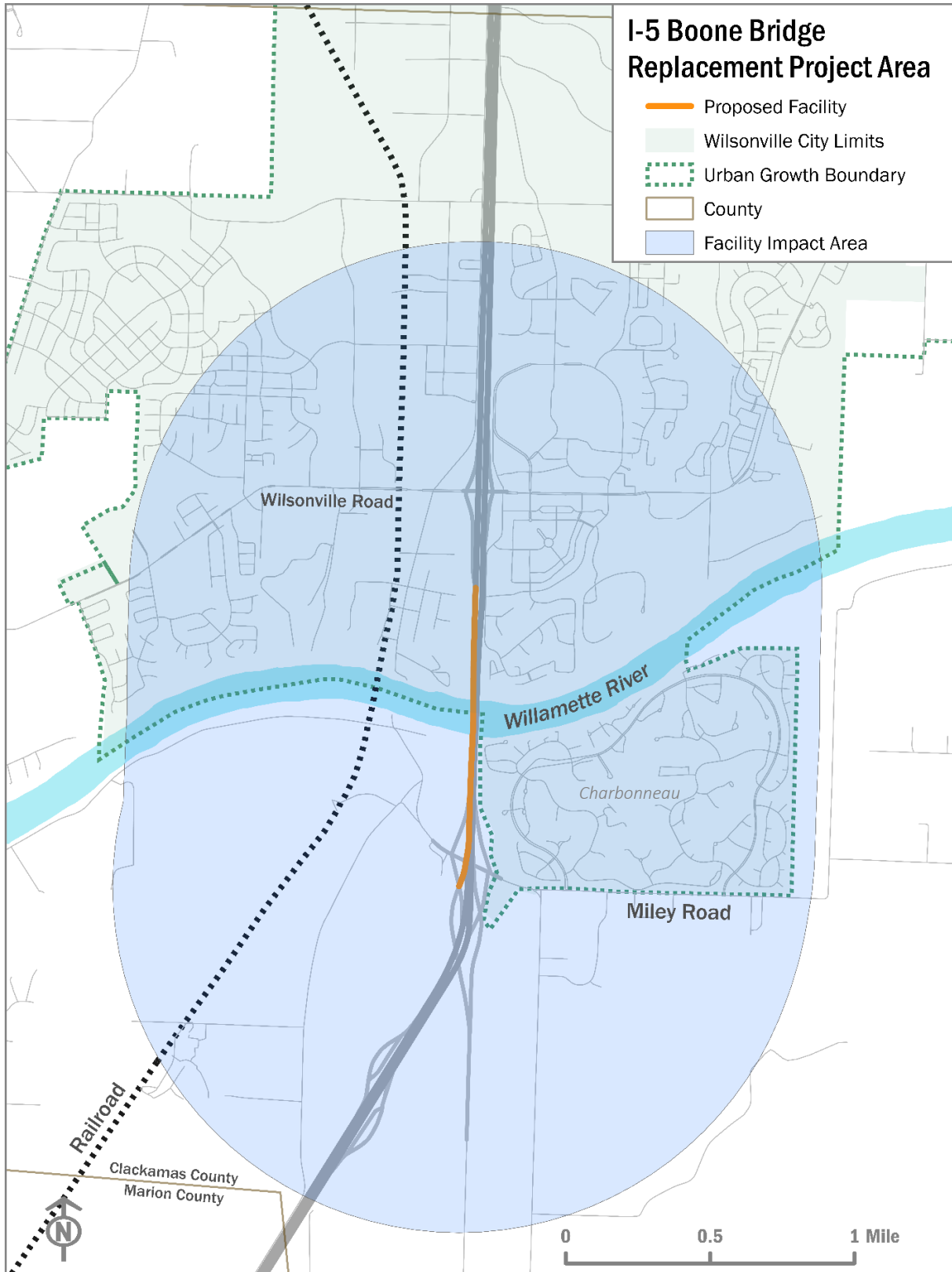
1.4.3 Engagement

The following engagement methods were utilized throughout both the PEL and CFEC process.

Table 2. Public Engagement

METHOD (DATE)	DESCRIPTION
Project Website	Share project information (key messages, schedule, and contact information) and updates: https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=i5-Boone-Bridge-Study
Project Handouts	Available on the project website and for use at in-person engagement events.
Boones Ferry Messenger	Monthly March 2024 – July 2024
Urban Mobility Strategy (UMS) Newsletter	<ul style="list-style-type: none"> December 2023 February 2024 March 2024 May 2024 June 2024 September 2024
Bicyclist and Pedestrian Bridge Use Survey	Online survey available during the Fall 2023 online open house and in-person open house to identify bicyclists’ and pedestrians’ needs in the project area.
In-Person Open Houses	<ul style="list-style-type: none"> November 16, 2023 September 18, 2024
Online Open Houses	<ul style="list-style-type: none"> November 6, 2023 – December 1, 2023 September 11 – 25, 2024
Wilsonville City Council	<i>Planned: October 21, 2024 to review the findings of the Enhanced Investment Scenario Analysis and determine if the City will pursue an Authorization Report.</i>
Focus Groups (CFEC-focused)	July 17, 2024: Seniors and low-income residents July 19, 2024: Latinx residents
Community Tabling Events	<ul style="list-style-type: none"> Charbonneau Newcomers Event: August 14, 2024 Canby Farmer’s Market: August 24, 2024 Wilsonville Farmers Market: September 5, 2024 – Event Cancelled due to Heat

Figure 3. Facility Impact Area



2 DOCUMENTED NEEDS AND ISSUES

facility impact area This section provides baseline information needed to understand the potential impacts of the proposed facility (southbound auxiliary lane) on underserved populations and investigate alternative investments that could be made instead to meet the project need. A summary is provided documenting the underserved populations within the as well as a summary of relevant gaps and deficiencies identified in the Wilsonville TSP.

2.1 Underserved Populations

Census data was reviewed to inform both the public involvement strategy and the summary of expected impacts on underserved populations. The data indicates that there are underserved populations found within the facility impact area, which intersects 15 U.S. Census Block Groups (BG), as shown in Figure 4. This figure summarizes information within the facility impact area for four socioeconomic indicators: people of color, low-income populations (below 200% of the federal poverty level), seniors (age 65 and over) and limited English-speaking households. The data is from the U.S. Census Bureau’s American Community Survey 5-year estimates for 2018 – 2022. For comparison, Table 3 provides aggregated data for the facility impact area, data for the state of Oregon and the nation as a whole.

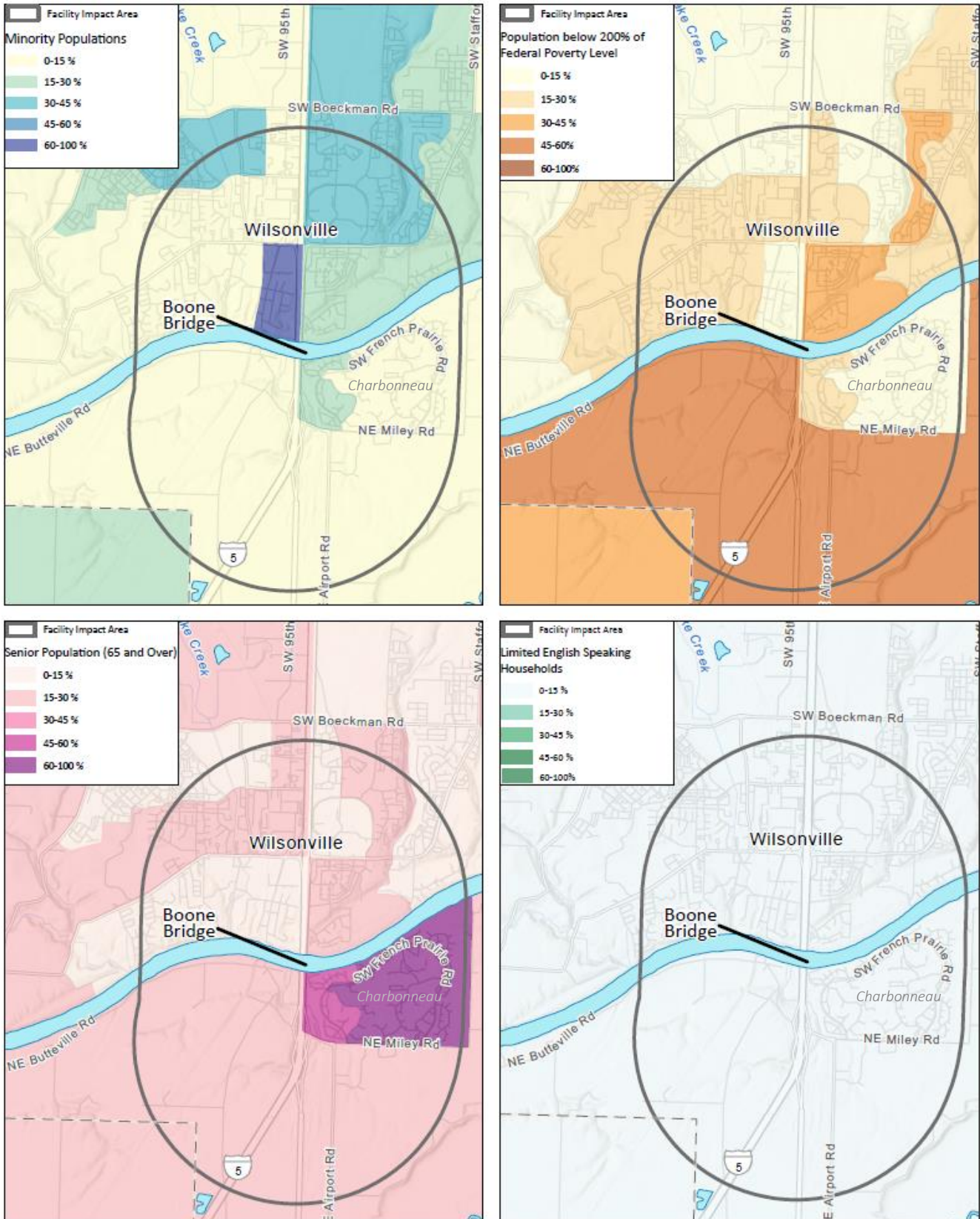
Table 3. Underserved Populations Summary

GEOGRAPHY	PEOPLE OF COLOR (%)	LOW INCOME (%)	SENIORS (% AGE 65 AND OVER)	LIMITED ENGLISH-SPEAKING HOUSEHOLDS (%)
Facility Impact Area (Combined BGs)	26%	21%	19%	2%
State of Oregon	27%	28%	18%	2%
United States	42%	28%	17%	4%

Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates

Within the facility impact area, the block group west of I-5 and north of the Willamette River has 69% people of color, which is a much higher percentage than in the Facility Impact Area, the state, or the United States as a whole. On the south side of the Willamette River (outside of Charbonneau), there is a high percentage of low-income population at 54%, almost double the state and national percentages. 72% of the block group containing the Charbonneau community is aged 65 and over. The percentages of households of limited English proficiency are lower than those in the United States overall and lower or on par with the percentages in the state.

Figure 4. Underserved Populations



2.2 Existing Transportation Deficiencies

The Wilsonville TSP was reviewed in order to identify gaps and deficiencies in the pedestrian, bicycle and public transportation facilities and the needed transportation demand management services within the facility impact area. This will aide in the identification and evaluation of alternatives. The findings are summarized in Table 4.

Table 4. Summary of Facility Impact Area Gaps and Deficiencies

TYPE OF FACILITY	DESCRIPTION OF GAP/DEFICIENCY
Pedestrian & Bicycle	<ul style="list-style-type: none"> • Lack of bike/pedestrian facilities on French Prairie Rd • Lack of bike/pedestrian crossings over I-5 • Deficiencies in trail connections between Boones Ferry Park and Memorial Park (a project was completed in 2021 but there are still small gaps in trail connectivity through Boones Ferry Park and on the Ice Age Tonquin Trail at 5th Street) • Lack of connectivity between Wilsonville and communities south of the Willamette River • Gap in facilities between industrial campuses and Elligsen Road • Lack of crossings along Canyon Creek Road (Project completed in 2016 to address this gap) • Lack of connectivity between the Wilsonville Transit Center (SMART/WES stations) and the Town Center • Lack of connectivity across Town Center loop limiting access to the Town Center area • Lack of connectivity between Wilsonville Road and Boeckman Road; lack of connectivity between Willamette River and Wilsonville Road (southwest Wilsonville) • Lack of connectivity between the Villebois development and the WES station (Project completed to address this gap) • Lack of connectivity between Boeckman Road and Town Center Loop and between Canyon Creek Road and Meadows Loop (southeast Wilsonville) • Bicycle facilities south of Willamette River (Clackamas County TSP)
Public Transportation	<ul style="list-style-type: none"> • Improved regional transit connections (e.g., expanded service hours and express service to downtown Portland) • ¼-mile coverage radius in Charbonneau and along the Willamette River • Low transit frequency in West Wilsonville • Rider education and outreach • Maintain quality transit fleet / new buses • WES Commuter Rail (Near-Term Regional Priority) for high capacity transit (Clackamas County TSP)
Transportation Demand Management	<ul style="list-style-type: none"> • Support SMART Options Program (works with Wilsonville area employers and residents to promote transit and other transportation options) • Mode choice surveys • Car sharing demand monitoring • Off-peak shift change policies and practices • Town Center Parking Management Plan • WES Station Parking Management Plan

Source: City of Wilsonville Transportation System Plan (Amended May 1, 2023)

Although not specifically mentioned in the Wilsonville TSP, there is a lack of fixed route public transportation service between Charbonneau and Wilsonville and between Legacy Meridian Park Medical Plaza and the Wilsonville Community Center.

2.2.1 Transportation Demand Management Services

Transportation Demand Management (TDM) refers to measures aimed at altering travel behavior to enhance the efficiency of transportation infrastructure and decrease the requirement for expanding road capacity. Various approaches may be used to employ these measures, such as promoting alternative modes of transportation, implementing ridesharing and vanpool initiatives, enacting trip-reduction regulations or incentives, encouraging travel during off-peak hours, and implementing reduced or paid parking schemes.

The following section provides a brief description of existing TDM programming in the facility impact area. Although not a specific TDM program, it should be noted that SMART is a free service (with the exception of the 1x to Salem route).

Table 5. Transportation Demand Management Programs

TDM PROGRAM	DESCRIPTION OF PROGRAMMING	RELEVANCE TO FACILITY IMPACT AREA
Get There Oregon	Ride-matching program that connects travelers to information on transit, biking, carpooling and vanpooling.	SMART offers a \$500 monthly discount to encourage commuter vanpools.
Metro’s Regional Travel Options (RTO)	Provides grants and assistance to organizations that increase walking, biking, ride sharing, telecommuting and public transit use.	SMART Options commuter program assists commuters in finding the best way to get to work by connecting employees to alternative modes of transportation.

3 PROPOSED FACILITY AND ENHANCED INVESTMENT SCENARIO

This section provides a review of the proposed facility (southbound auxiliary lane) and alternative investments that were evaluated in pedestrian and bicycle systems, public transportation, transportation options programs and/or system pricing. The alternative investments are collectively referred to as the enhanced investment scenario. The level of analysis conducted for this planning effort relies on existing plans and studies as much as practical, as supported by the guidance in OAR 660-012-0830(5)(d).

3.1 Proposed Facility

As previously described, the Project includes alternatives with a southbound auxiliary lane between the I-5: Wilsonville Road Interchange entrance ramp and the I-5: OR 551 Interchange exit ramp. A conceptual drawing is shown in Figure 5. For the purposes of the enhanced review process, the proposed facility is the southbound auxiliary lane. **The southbound auxiliary lane is one component of the overall Boone Bridge Replacement Project** and is included to help address safety issues, manage traffic congestion, and improve connections for movement of vehicles (including transit and freight). The larger Project would address the movement of bicycles and pedestrians as well, however that is not the specific need for the auxiliary lane, which is the focus of the requirements outlined in OAR 660-012-0830.

3.1.1 Impacts to Vehicle Travel

The potential impacts to vehicle travel were evaluated to understand the forecasted, latent and induced demand both with and without the proposed southbound auxiliary lane. Induced demand is considered new travel demand that does not exist prior to building a proposed facility, which is above and beyond forecasted and latent demand associated with planned background growth.

3.1.1.1 Changes in Motor Vehicle Travel

Metro's travel demand model was used to forecast future background traffic growth and the estimated additional motor vehicle travel resulting from the proposed southbound auxiliary lane. The analysis relied on the traffic analysis from the PEL study to understand forecasted and latent demand through the year 2045. The 2045 future year volumes are based on the post-processed 2023 peak period hourly traffic volumes grown to year 2045 using growth from the 2023 Metro Regional Transportation Plan (RTP) financially constrained travel demand model.

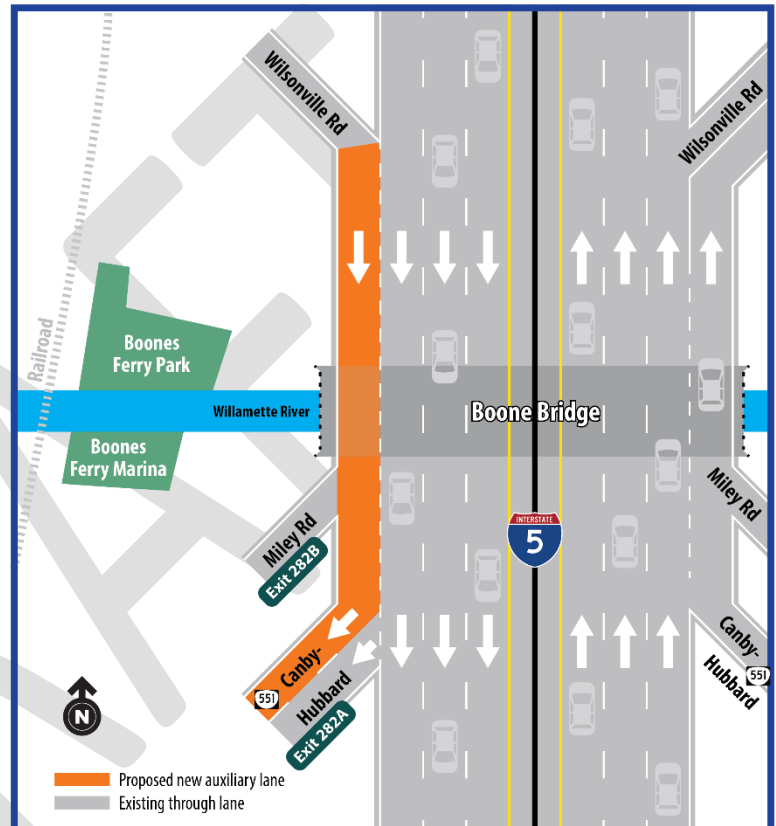


Figure 5. Proposed Facility: Southbound Auxiliary Lane

The model uses a 2020 base year model, a 2045 future year model to forecast traffic volumes in the Portland Metro Area.

Overall, the forecasts suggest traffic volumes in the region are expected to grow between 13 and 25 percent from 2023 to 2045. Comparing the 2045 No Build peak period volumes to the 2045 traffic forecasts with the southbound auxiliary lane on Boone Bridge, the overall change in volumes is minor. The largest increase in volumes in the project area is southbound I-5 between the Wilsonville Road entrance ramp and OR 551 – Canby Hubbard exit ramp, which sees a daily increase in volume of approximately 440 vehicles per day (less than 0.5% of the daily traffic crossing the bridge), with a peak hourly increase of 125 vehicles during the 6 PM hour.

The regional VMT calculated from the travel demand models is effectively the same for No Build (without proposed facility) and with the proposed facility (southbound auxiliary lane), as shown in Table 6. The results are rounded to the nearest 100,000 miles. These relatively small increases in volume southbound across the Boone Bridge and no change to the regional VMT indicates that the auxiliary lane would have negligible impact on travel demand.

Table 6. Metro Travel Demand Model Regional VMT

SCENARIO	AM PEAK PERIOD (6:00 AM – 9:00 AM)	PM PEAK PERIOD (2:00 PM – 7:00 PM)	DAILY
2020 Base	9.1 million VMT	14.9 million VMT	45.4 million VMT
2045 No Build	11.5 million VMT	19.0 million VMT	58.5 million VMT
2045 With Proposed Facility	11.5 million VMT	19.0 million VMT	58.5 million VMT

3.1.1.2 Induced Demand and Land Use

The enhanced review requires estimating the additional motor vehicle travel per capita that is expected to be induced by the implementation of the proposed facility over the first 20 years of service (2031 to 2050). The induced demand is new demand for travel that did not exist prior to the build scenario. This is above and beyond forecasted and latent demand associated with planned land use; it is demand that is the result of changes in land use (zone changes) or economic conditions that create new trips. This is different than the data summarized above from the Metro Travel Demand Model.

The Statewide Integrated Model (SWIM) was used to evaluate cumulative induced demand. A previous evaluation published in December 2020¹ found negligible (<1%) change to population and employment in the five counties around the project (Clackamas, Marion, Yamhill, Multnomah and Washington counties), between the No Build and Build scenarios. ODOT completed an update to the evaluation using the current SWIM model for the first 20 years of service for this project (2031 to 2050) and again found similar negligible impacts. The new results show a smaller impact than the 2020 analysis, with approximately 0.1% change in population and employment and a cumulative change in VMT per capita over the first 20 years of service of approximately 0.05%. This level of increase is so small it may be considered negligible.

¹ I-5 Boone Bridge and Seismic Improvement Project: Evaluation of Travel Demand and Land Use Impacts, ODOT, December 2020

3.1.2 Impacts on the Underserved Populations

In order to understand how the proposed southbound auxiliary is expected to impact the underserved populations, an engagement-focused analysis was completed. The analysis considered how the proposed southbound auxiliary lane could impact household costs, changes in the ability to access jobs and services without the use of a motor vehicle and a review of lived experiences. As part of that effort, ODOT and the consultant team conducted two focus groups.

3.1.2.1 Focus Groups

In July 2024, ODOT and the consultant team conducted two focus groups with underrepresented communities. These groups, one in English and one in Spanish, involved seniors, low-income residents and Spanish-speaking individuals discussing travel patterns, concerns and preferences. The consultant team included community engagement liaisons to recruit diverse participants who were compensated for their input under ODOT's Equitable Engagement Compensation Policy.

Eleven participants attended the English focus group held on July 17, 2024. Participants included seniors and those experiencing low incomes who live in or near Wilsonville and use the bridge frequently. Seven participated in the Spanish focus group held on July 19, 2024. The majority of participants experience low incomes, live in Canby or surrounding areas and use the bridge frequently.

Common themes emerged from both discussions including the heavy personal impact of traffic congestion on daily activities and a general preference for improvements that would enhance safety and travel reliability. Participants primarily use the highway for commuting to work, family visits, grocery shopping and accessing other essential services. Participants expressed support for a southbound auxiliary lane and emphasized the importance of any improvements that could lead to more predictable travel times and reduce traffic congestion. None of the respondents indicated the southbound auxiliary lane would negatively impact household costs.

Additionally, there was some interest in better options for walking, bicycling and transit, though this was stronger in the English-speaking focus group than the Spanish-speaking focus group. Neither focus group was interested in prioritizing new carpool options or park and ride facilities. The detailed summary from the focus groups is available in the Appendix.

3.2 Enhanced Investment Scenario

The affected jurisdictions, in consultation with ODOT and the consultant team, developed a package of investments that could address the gaps and deficiencies in Table 4 that were found to be related to the need for the southbound auxiliary lane. The investments in the package outlined in Table 7 represent options that are reasonably likely to be implemented and that could contribute to meeting the need for the southbound auxiliary lane.

This section (starting on page 13) provides a more detailed description of the components of the enhanced investment scenario and evaluation. This includes an assessment of the effectiveness of the identified investments to substantially meet the need for the proposed southbound auxiliary lane (as described in 1.3 of this report) and considers adopted state, regional, and local targets for reduction of vehicle miles traveled to reduce climate pollution.

Table 7. Enhanced Investment Scenario

TYPE OF FACILITY	OAR 660-012-0830 GUIDANCE	ENHANCED INVESTMENT(S)
Pedestrian & Bicycle	Could contribute to meeting the identified need which do not require implementation of the proposed facility, or which may be implemented without the proposed facility, and may be retained if the proposed facility is implemented.	Connection across the Willamette River. Examples: <ul style="list-style-type: none"> • New separate French Prairie Pedestrian/Bicyclist Bridge • New separate facility on Boone Bridge
Public Transportation	Identify opportunities for providing additional transit service within or to the facility impact area; and identify potential transit facility and service investments that contribute to meeting the identified need which may be implemented without the proposed facility.	<ul style="list-style-type: none"> • Bus service between Wilsonville and Woodburn • Bus on shoulder
Transportation Demand Management	Identify opportunities for providing transportation demand management services in and around the facility impact area; and identify potential transportation options program investments that contribute to meeting the identified need which may be implemented without the proposed facility.	<ul style="list-style-type: none"> • Additional park and ride • Enhanced carpool and vanpool
System Pricing	Pricing methods identified should be reasonably expected to meet the identified need for the Project auxiliary lanes, may reasonably be implemented, and can be expected to generate sufficient revenue to cover the costs of operating the collection apparatus.	<ul style="list-style-type: none"> • Highway facility pricing using assumptions based in RMPP • Wilsonville parking pricing

3.2.1 Investments in Bicycle and Pedestrian Facilities

A review of the Wilsonville TSP identified several gaps in bicycle and pedestrian connectivity, including lack of connectivity between Wilsonville and communities south of the Willamette River. The enhanced investment scenario includes a protected bicycle and pedestrian facility across the Willamette River, either in the form of a separated pedestrian/bicyclist facility on Boone Bridge or via a separate French Prairie Bridge. From a capacity standpoint, both options are equivalent. These projects were selected for their ability to provide an alternative crossing of the Boone bridge that does not require the use of a motor vehicle and align with the alternatives developed for the PEL study. The investment would include one of the options described below:

- **Bike/Ped Facility on Boone Bridge:** Construct a new multi-use path on the new freeway bridge
- **Bike/Ped Facility on French Prairie Bridge:** Construct a new multi-use path river crossing west of I-5 near Boones Ferry Park

Forecasting models for bicycle and pedestrian demand are limited; the analysis must rely on local data and engineering judgement to estimate the anticipated benefit as it relates to reducing VMT and climate pollution.

3.2.2 Investments in Public Transportation

The project team coordinated with SMART to develop the investments in public transportation that are most likely to serve local and regional traffic across the Boone Bridge. The investments are described below:

- **Bus on Shoulder:** Allow Bus on Shoulder on I-5 across the Boone Bridge
- **Bus Service between Wilsonville and Woodburn:** Provide weekday transit service between Wilsonville and Woodburn, which is scheduled to commence during 2025.

3.2.3 Investments in Transportation Options

The project team coordinated with SMART to develop the investments in public transportation that are most likely to serve local and regional traffic across the Boone Bridge. The investments are described below:

- **Park and Ride:** Provide additional park and ride locations in Wilsonville.
- **Enhanced carpool and vanpool:** Provide enhanced carpool and vanpool through SMART.

3.2.4 Investments in System Pricing

System pricing methods may include, but are not limited to parking pricing, tolling, facility pricing, cordon pricing, or congestion pricing. The project team reviewed previous studies on system pricing within the facility impact area and determined two methods that could be considered as alternatives to the southbound auxiliary lane:

- **Highway facility pricing/tolling:** Use modeling assumptions from the Regional Mobility Pricing Project (RMPP) to act as a proxy for tolling.
- **Parking Pricing:** Enact parking pricing for commercial centers.

The analysis of the system pricing utilizes the 2023 RTP which includes the RMPP. The traffic analysis conducted as part of the PEL process reviewed the traffic operations and changes in traffic demand. In the case of CFEC, the RMPP modeling assumptions act as a proxy for tolling in general. It does not require RMPP as a basis for future work.

4 EVALUATION SUMMARY AND RESULTS

4.1 Evaluation Criteria

The evaluation criteria and performance measures are shown in Table 8. Unless noted, all criteria/performance measures utilized the future horizon year of 2045. Consistent with the conceptual level of design and the PEL and CFEC guidelines, the screening results are based on readily-available data and information from previous studies. The anticipated benefits and impacts were evaluated for the southbound auxiliary lane and each component of the enhanced investment scenario.

Table 8. Enhanced Investment Scenario

CRITERIA	PERFORMANCE MEASURE / CONSIDERATIONS
Impacts to Underserved Populations: Ability to access jobs/services without motor vehicle	Multimodal connectivity How well does the alternative improve multimodal access to jobs/services when compared to the proposed project?
Impacts to Underserved Populations: Changes in household cost	Hard and soft costs (e.g. fees and value of road user’s time) Does the alternative increase household cost?
Impacts to Underserved Populations: Feedback on lived experience	Lived experience (community feedback) Does the community think the investment provides a measurable benefit when compared to the proposed project?
Estimated additional motor vehicle traffic induced by project	Estimated additional motor vehicle travel per capita How well does the alternative offset or reduce the proposed project’s induced demand?
Purpose and Need: Improve safety	Crash reduction factors How well does the alternative reduce crashes when compared to the proposed project?
Purpose and Need: Congestion Relief	Traffic operations from simulation model outputs How well does the alternative improve traffic operations when compared to the proposed project?

4.2 Evaluation Summary Matrix

The screening matrix in Table 9 summarizes the evaluation results for each alternative. The symbols shown with each performance measure in the screening matrix provide a visual indication of the comparative performance of each alternative and are not intended to indicate a decision about an alternative’s reasonableness. The purpose of this evaluation is to determine whether alternative investments could replace the need for the southbound auxiliary lane, and thus the analysis is primarily focused to the vicinity of I-5 between the Wilsonville entrance ramp and the exits ramps at Miley Road and OR 551 – Canby Hubbard. The design details such as location and scheduling would be refined during future project development.

Table 9. Summary of Alternatives

FACTOR	SOUTHBOUND AUXILIARY LANE	BICYCLE AND PEDESTRIAN FACILITIES		PUBLIC TRANSPORTATION		TRANSPORTATION OPTIONS		SYSTEM PRICING	
		BOONE BRIDGE	FRENCH PRAIRIE BRIDGE	BUS ON SHOULDER	WILSONVILLE TO WOODBURN BUS SERVICE	PARK AND RIDE	ENHANCED CARPOOL AND VANPOOL	HIGHWAY FACILITY PRICING/TOLLING	PARKING PRICING
Impacts to Underserved Populations: Ability to access jobs/services without motor vehicle	Improves travel time reliability for transit and transportation options.		Adds improved connection across the Willamette River, connecting planned trails and Charbonneau to City commercial uses.	Improves connection and travel time reliability.	Adds improved connection between Wilsonville and regional job center.	Currently underutilized, but provides options for accessing jobs/services without a motor vehicle.	Currently underutilized, but provides options for accessing jobs/services without a motor vehicle.	Improves travel time reliability for transit and transportation options.	Does not benefit multimodal travel.
Impacts to Underserved Populations: Changes in household cost	Negligible		Negligible	Negligible	Negligible	Negligible; current park and ride lots are underutilized.	Negligible	Results in an increased hard cost and soft costs may be reduced through reduced congestion. Underserved population discount may be available.	Results in an increased hard cost.
Impacts to Underserved Populations: Feedback on lived experience	Support for improved capacity and connections on I-5.		Support for improved bicycle and pedestrian connections.	Support for improved travel time reliability.	Support for expanded transit options to the region.	Negligible; skepticism on ability to address I-5 congestion.	Negligible; skepticism on ability to address I-5 congestion.	<i>Not supported.</i>	<i>Not supported.</i>
Induced demand	Estimated motor vehicle travel per capita: <0.05% increase / day.		Some ability to shift local trips but limited in ability to address regional interstate trips.	Some ability to shift local trips but limited in ability to address regional interstate trips.	Some ability to shift local trips but limited in ability to address regional interstate trips.	Not currently effective; current park and ride lots are underutilized.	Some ability to shift local trips but limited in ability to address regional interstate trips.	Certain price thresholds have been shown to slow growth in estimated motor vehicle travel per capita.	Some ability to shift local trips but limited in ability to address regional interstate trips.
Purpose and Need: Improve safety	Reduces crashes of all crash severity. Does not benefit documented bicycle and pedestrian crash history		Reduces freeway conflicts with bicycles and pedestrians. Does not benefit documented motor vehicle crash history	Negligible Does not benefit documented motor vehicle crash history	Negligible Does not benefit documented motor vehicle crash history	Negligible Does not benefit documented motor vehicle crash history	Negligible Does not benefit documented motor vehicle crash history	Negligible May improve safety on the mainline, however impacts to local system are not yet documented.	Negligible Does not benefit documented motor vehicle crash history
Purpose and Need: Congestion Relief	Improves traffic operations, travel time reliability and duration of congestion.		Not effective in interstate congestion relief.	Some ability to reduce interstate congestion.	Some ability to reduce interstate congestion.	Not effective in interstate congestion relief.	Negligible.	Slows interstate traffic volume growth. Potential diversion depends on pricing details..	Not effective in interstate congestion relief.

Comparatively positive, moderate or major benefits and/or minor impacts Comparatively neutral, minor benefits, and/or moderate impacts Comparatively negative

5 FINDINGS AND RECOMMENDATIONS

The intent of the enhanced review process is to provide the City of Wilsonville and Clackamas County with essential information to guide decision-making as it relates to aligning transportation investments with Statewide goals to reduce climate pollution, provide more transportation and housing choices, and promote more equitable land use planning outcomes.

5.1 Findings

The analysis of potential impacts of the proposed facility indicate the addition of a southbound auxiliary lane is not expected to result in changes in land use and the increase in VMT per capita from induced demand effects would be approximately 0.05% (for the area bounded by Clackamas, Marion, Yamhill, Multnomah and Washington counties). This suggests negligible impacts to VMT per capita due to the southbound auxiliary lane.

The enhanced investment scenario review also analyzed potential investments in the following areas as required by OAR 660-012-0830:

- Pedestrian and Bicycle System: Connection across the Willamette River (e.g., French Prairie Pedestrian/Bicyclist Bridge facility or a protected, multi-use facility on the Boone Bridge)
- Public Transportation: Bus service between Wilsonville and Woodburn and Bus on Shoulder
- Transportation Demand Management: Additional park-and-ride locations and enhanced carpool/vanpool
- System Pricing: Highway facility pricing and Wilsonville parking pricing

The findings of the analysis indicate investments in alternatives to the southbound auxiliary lane are not able to substantially meet the need of the southbound auxiliary lane to address safety and improve congestion, even as a combined set of investments. However, because the auxiliary lane alone does not provide significant benefit to populations that rely on walking or bicycling as their primary mode of transportation, the City recognizes the benefit of providing a protected bicycle and pedestrian crossing of the Willamette River and investments in improved transit. These projects do not require their own authorization report for inclusion in the City's TSP project list and may be pursued with or without authorization of the proposed southbound auxiliary lane.

5.2 Recommendations

The recommendation is to proceed with an authorization report. "Authorization" in this context means that the City of Wilsonville has approved the southbound auxiliary lane project to move forward, which will eventually culminate with the inclusion of the project in the unconstrained and/or financially constrained project list of the updated TSP. The timing of the TSP update is at the discretion of the City.