

## MEMORANDUM

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Date: February 10, 2021 Project #: 23021.19  
To: Sandra Hikari  
ODOT Region 1 – Major Projects  
From: Nick Gross, Amy Griffiths, EIT, Alex Garbier, Marc Butorac, PE, PTOE, PMP  
Project: Oregon City-West Linn Pedestrian and Bicycle Bridge Concept Plan  
Subject: Evaluation Criteria for Crossing Alignments

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The purpose of this memorandum is to articulate the evaluation criteria to fulfill the purpose and need for the Oregon City-West Linn Pedestrian and Bicycle Bridge Concept Plan (Concept Plan). Setting clear, actionable, and measurable evaluation criteria enables the Project Management Team (PMT) with support from the Project Advisory Committee (PAC) and Project Leadership Team (PLT) the ability to recommend a preferred alignment for adoption. The recommended alignment aims to meet the intended outcomes for the project set by the purpose and need (see Appendix A). This document provides an overview of the related plans and policies and describes the evaluation methodology and criteria.

### GUIDING GOALS AND POLICIES

The purpose of the Concept Plan is to identify and select a preferred bridge alignment for people walking, biking, and rolling across the Willamette River to connect the communities of Oregon City and West Linn, enhance safety, and improve regional connectivity. The Concept Plan will address the following needs, summarized in further detail in the Purpose and Need (see Appendix A).

- Address Historic Arch Bridge deficiencies for people walking, biking, and rolling;
- Identify a new low-stress, comfortable, and designated connection across the Willamette River to increase experience for people walking, biking, and rolling;
- Connect existing and planned walking, biking, and rolling networks;
- Enhance accessibility and cultural experience of the Historic Willamette Falls;
- Create opportunities for economic and community development; and,
- Minimize environmental impacts.

### BACKGROUND REVIEW

The Oregon City Transportation System Plan (TSP), West Linn TSP, Clackamas County TSP, Clackamas County Active Transportation Plan (ATP), and Metro Regional Transportation Plan (RTP) were reviewed as part of the evaluation criteria development to ensure Concept Plan goals and policies are consistent with local and regional planning documents. These documents and associated goals are summarized in Table 1.

**Table 1: Local and Regional Transportation Plan Goals**

Goal	Oregon City TSP	West Linn TSP	Clackamas County TSP	Clackamas County ATP	Metro RTP
<b>Equity</b>	<ul style="list-style-type: none"> <li>Provide an equitable, balanced and connected multi-modal transportation system</li> </ul>	<ul style="list-style-type: none"> <li>Equity – Develop transportation facilities that are accessible to all members of the community</li> </ul>	<ul style="list-style-type: none"> <li>Provide an equitable transportation system</li> <li>Tailor transportation solutions to suit the diversity of local communities</li> </ul>	<ul style="list-style-type: none"> <li>Accessible and Safe – Build an active transportation network that is accessible and safe for all ages, abilities and incomes</li> </ul>	<ul style="list-style-type: none"> <li>Equitable Transportation – The transportation-related disparities and barriers experienced by historically marginalized communities, particularly communities of color, are eliminated</li> <li>Transparency and Accountability – Regional transportation decisions are open and transparent and distribute the benefits and burdens of our investments in an equitable manner</li> </ul>
<b>Demand</b>	<ul style="list-style-type: none"> <li>Increase the convenience and availability of pedestrian, bicycle, and transit modes</li> </ul>	<ul style="list-style-type: none"> <li>Mobility, Access, and the Environment – Improve people’s access to jobs, schools, health care and other regular needs in ways that improve health, reduce pollution and retain money in the local economy</li> </ul>	<ul style="list-style-type: none"> <li>None related</li> </ul>	<ul style="list-style-type: none"> <li>Active Transportation Infrastructure – Plan an active transportation network consisting of multi-use paths, bikeways and walkways in Clackamas County to encourage more residents to bicycle or walk for recreation and transportation</li> <li>Connectivity – Plan and develop the Principal Active Transportation routes to enhance connections to transit, schools, communities, town centers, shopping, employment, parks and other significant destinations within Clackamas County</li> <li>Tourism Development – Create an active transportation system that will draw tourists and promote Clackamas County as a premier cycling destination in Oregon</li> </ul>	<ul style="list-style-type: none"> <li>Shared Prosperity – People have access to jobs, goods and services and businesses have access to workers, goods and markets in a diverse, inclusive, innovative, sustainable and strong economy that equitably benefits all the people and businesses of the greater Portland region</li> <li>Reliability and Efficiency – The transportation system is managed and optimized to ease congestion, and people and businesses are able to safely, reliably and efficiently reach their destinations by a variety of travel options</li> </ul>
<b>Transportation Safety</b>	<ul style="list-style-type: none"> <li>Enhance the health and safety of residents</li> </ul>	<ul style="list-style-type: none"> <li>Safety – Reduce transportation related fatalities and injuries for all transportation modes</li> </ul>	<ul style="list-style-type: none"> <li>Promote a transportation system that maintains or improves our safety, health, and security.</li> </ul>	<ul style="list-style-type: none"> <li>Accessible and Safe – Build an active transportation network that is accessible and safe for all ages, abilities and incomes</li> </ul>	<ul style="list-style-type: none"> <li>Safety and Security – People’s lives are saved, crashes are avoided and people and goods are safe and secure when traveling in the region</li> </ul>
<b>Health</b>	<ul style="list-style-type: none"> <li>Enhance the health and safety of residents</li> </ul>	<ul style="list-style-type: none"> <li>Mobility, Access, and the Environment – Improve people’s access to jobs, schools, health care and other regular needs in ways that improve health, reduce pollution and retain money in the local economy</li> </ul>	<ul style="list-style-type: none"> <li>Promote a transportation system that maintains or improves our safety, health, and security</li> </ul>	<ul style="list-style-type: none"> <li>Improve Health – Plan and provide infrastructure that allows people to safely walk, run or cycle for improved health</li> </ul>	<ul style="list-style-type: none"> <li>Healthy People – People enjoy safe, comfortable and convenient travel options that support active living and increased physical activity, and transportation-related pollution that negatively impacts public health are minimized</li> </ul>
<b>Transportation Sustainability</b>	<ul style="list-style-type: none"> <li>Foster a sustainable transportation system</li> </ul>	<ul style="list-style-type: none"> <li>Mobility, Access, and the Environment – Improve people’s access to jobs, schools, health care and other regular needs in ways that improve health, reduce pollution and retain money in the local economy</li> <li>Maintenance – Maintain, protect and improve the existing transportation system</li> </ul>	<ul style="list-style-type: none"> <li>Provide a transportation system that optimizes benefits to the environment, the economy and the community</li> </ul>	<ul style="list-style-type: none"> <li>None related</li> </ul>	<ul style="list-style-type: none"> <li>Transportation Choices – people throughout the region have safe, convenient, healthy and affordable options that connect them to jobs, school, services, and community places, support active living and reduce transportation-related pollution</li> <li>Healthy Environment – The greater Portland region’s biological, water, historic and cultural resources are protected and preserved</li> <li>Climate Leadership – The health and prosperity of people living in the greater Portland region are improved and the impacts of climate change are minimized as a result of reducing transportation-related greenhouse gas emissions</li> </ul>
<b>Cost</b>	<ul style="list-style-type: none"> <li>Identify solutions and funding to meet system needs</li> <li>Ensure the transportation system supports a prosperous and competitive economy</li> <li>Emphasize effective and efficient management of the transportation system</li> </ul>	<ul style="list-style-type: none"> <li>Mobility, Access, and the Environment – Improve people’s access to jobs, schools, health care and other regular needs in ways that improve health, reduce pollution and retain money in the local economy</li> </ul>	<ul style="list-style-type: none"> <li>Promote a fiscally responsible approach to protect and improve the existing transportation system and implement a cost-effective system to meet future needs</li> <li>Plan the transportation system to create a prosperous and adaptable economy and further the economic well-being of businesses and residents of the County</li> </ul>	<ul style="list-style-type: none"> <li>None related</li> </ul>	<ul style="list-style-type: none"> <li>Fiscal Stewardship – Regional transportation planning and investment decisions provide the best return on public investments</li> </ul>
<b>Design Feasibility</b>	<ul style="list-style-type: none"> <li>Comply with the state and regional transportation system</li> </ul>	<ul style="list-style-type: none"> <li>None related</li> </ul>	<ul style="list-style-type: none"> <li>None related</li> </ul>	<ul style="list-style-type: none"> <li>None related</li> </ul>	<ul style="list-style-type: none"> <li>None related</li> </ul>

## EVALUATION METHODOLOGY

Kittelson will evaluate the potential bridge alignments based on a set of criteria. The criteria will indicate the relative strengths and weaknesses of the different alignment alternatives. The criteria will inform the selection of the preferred alignment for people walking, biking, and rolling across the Willamette River. The criteria will be evaluated using qualitative and quantitative performance measures that are described in detail in Table 2. Kittelson will create a tool for estimating walking and biking trip demand for each alignment alternative as part of the quantitative analysis.

### Criteria and Performance Measures

City, county, and Metro TSP goals were converted into seven evaluation criteria for the Concept Plan. These evaluation criteria were further compared to the project purpose and need to ensure consistency and relevant application to the project context. Table 2 describes the evaluation criteria and provides proposed performance measures for evaluating each criterion.

- **Evaluation Criteria** are derived from the goal and policies from city, county, and Metro TSP's and will be used to evaluate alignment alternatives.
- **Description** includes the purpose and general explanation of the evaluation criteria, connecting the evaluation criteria to the specific community or agency values, goals, and desired outcomes for the Concept Plan.
- **Performance Measures** are metrics used to assess the evaluation criteria.

### Scoring and Evaluation

Alignment alternatives are evaluated based on the extent to which the alignment meets the performance measures included in each evaluation criterion. The proposed methodology for evaluating each performance measure is summarized in Table 3. The methodology uses a scoring scale from -1 to +2, with scores corresponding to the following conditions:

- **Score of -1:** Alignment has a negative impact on measure.
- **Score of 0:** Alignment does not have a substantive impact on measure.
- **Score of +1:** Alignment has moderate positive impact on measure.
- **Score of +2:** Alignment has substantial positive impact on measure.

Scores of -1 and +2 are excluded for some performance measures where they are not applicable. For example, the scoring category of +2 is not used if it is not possible to distinguish a moderate from substantial positive outcome. All evaluation criteria are weighted equally. The total score ranges between -7 (worst possible score) to +14 (best possible score) based on the seven evaluation criteria listed in Table 2. Table 2 uses general descriptions for evaluation. Further detail will be provided to the evaluation descriptions through the analysis. *Appendix B provides a sample evaluation of potential project alignments.*

**Table 2: Evaluation Criteria and Performance Measures**

Evaluation Criterion	Description	Performance Measures
<b>Equity</b>	The public involvement process identifies key groups of social, cultural, and economic priority populations to involve in the Concept Plan development. The alignment is supported by stakeholders with a particular emphasis on indigenous persons. The selection of the preferred alignment has been informed by priority populations with participation throughout the planning process.	<ul style="list-style-type: none"> <li>• Social and economic power mapping</li> <li>• Public support, with particular focus on indigenous persons perspective</li> <li>• Equity assessments emphasizing anti-displacement and community stabilization</li> </ul>
<b>Demand</b>	The alignment increases the convenience and opportunities for walking and biking trips. The alignment improves access to essential destinations.	<ul style="list-style-type: none"> <li>• Projected bicycle and pedestrian trips<sup>1</sup></li> <li>• Integration into regional active transportation infrastructure</li> <li>• Local access to essential destinations</li> </ul>
<b>Transportation Safety</b>	The alignment provides safe and comfortable facilities for people walking, biking, and rolling.	<ul style="list-style-type: none"> <li>• Pedestrian Level of Traffic Stress (PLTS)</li> <li>• Bicycle Level of Traffic Stress (BLTS)</li> </ul>
<b>User Experience</b>	The alignment and its approaches are comfortable for users as it relates to sense of place, personal security and considers the scenic, cultural, and historical experiences of the users within the study area	<ul style="list-style-type: none"> <li>• Qualitative assessment of personal security</li> <li>• Qualitative assessment of scenic experience and sense of place.</li> <li>• Qualitative assessment of cultural and historical experience</li> </ul>
<b>Health</b>	The alignment provides an anticipated increase in the frequency of people walking and biking and a decrease in driving trips. These changes are associated with physical, social, and mental health benefits from increased activity and decreased vehicle emissions.	<ul style="list-style-type: none"> <li>• Relative to existing conditions, projected change in bicycle and pedestrian trips and in driving trips<sup>1</sup> (includes qualitative discussion of relationship between activity and health)</li> <li>• CO<sub>2</sub> reduction potential</li> </ul>
<b>Environmental</b>	The alignment minimizes impacts to cultural and environmental resources	<ul style="list-style-type: none"> <li>• Environmental impacts</li> <li>• Cultural Resource impacts</li> <li>• Regulatory constraints</li> </ul>
<b>Cost</b>	The alignment has an order of magnitude cost for design and construction.	<ul style="list-style-type: none"> <li>• Planning-level cost estimates</li> </ul>
<b>Design Feasibility</b>	The alternative has no major design feasibility concerns and can meet Americans with Disabilities Act of 1990 (ADA) requirements.	<ul style="list-style-type: none"> <li>• Horizontal and vertical bridge approach and alignments.</li> <li>• Clearance to flood elevation</li> <li>• River vessel navigational impact</li> <li>• Accommodation of emergency vehicles</li> <li>• Properties of sufficient size to serve bridge landing</li> </ul>

<sup>1</sup>Demand will be modelled using travel pattern data and review of characteristics of the alignment alternative and likely approaches to that alignment.

**Table 3: Proposed Scoring Methodology**

Evaluation Criterion	Performance Measure	Scoring Scale <sup>1</sup>				Resources
		-1	0	+1	+2	
Equity	Social and economic power mapping	The alignment <b>negatively</b> impacts vulnerable groups identified in the power mapping	The alignment has <b>no significant</b> impact to vulnerable groups identified in power mapping	The alignment <b>moderately enhances</b> access to vulnerable groups identified in power mapping	The alignment <b>substantially enhances</b> access to vulnerable groups identified in power mapping	Social and economic power mapping exercise and stakeholder interviews
	Public support, with particular emphasis on indigenous persons perspective	The alignment has primarily <b>negative</b> responses	The alignment has <b>neutral</b> or <b>mixed</b> responses	The alignment has <b>moderately positive</b> responses	The alignment has <b>strongly positive</b> responses	Survey responses, stakeholder interviews, PAC, PLT, focus group, and public meetings
Demand & Access	Projected walking and biking trips	The alignment is expected to have <b>fewer</b> walking and biking trips than the Arch Bridge	The alignment is <b>not</b> expected to <b>substantively increase</b> walking and biking trips	The alignment is expected to <b>moderately increase</b> walking and biking trips	The alignment is expected to <b>substantially increase</b> walking and biking trips	Demand tool incorporating StreetLight data origin-destination patterns, qualitative review of likely path, approach grade, PLTS, and BLTS
	Community access to essential destinations (within a half mile)	N/A	<b>Few</b> essential destinations are within a half-mile radius of bridge alignment	<b>Some</b> essential destinations are within a half-mile radius of bridge alignment	<b>Many</b> essential destinations are within a half-mile radius of bridge alignment	Count of essential destinations within a half-mile radius of the project location <sup>2</sup> .
Transportation Safety	Pedestrian Level of Traffic Stress (PLTS)	Users are required to travel along <b>high-stress (PLTS 4)</b> connections to access the bridge	Users are required to travel along <b>relatively high-stress (PLTS 3)</b> connections to access the bridge	Users can access the bridge on moderately <b>low-stress (PLTS 2)</b> connections	Users can access the bridge on completely <b>low-stress (PLTS 1)</b> connections	Posted speed, traffic volumes, number of lanes, and pedestrian facility type
	Bicycle Level of Traffic Stress (BLTS)	Users are required to travel along <b>high-stress (BLTS 4)</b> connections to access the bridge	Users are required to travel along <b>relatively high-stress (BLTS 3)</b> connections to access the bridge	Users can access the bridge on moderately <b>low-stress (BLTS 2)</b> connections	Users can access the bridge on completely <b>low-stress (BLTS 1)</b> connections	Posted speed, traffic volumes, number of lanes, and bicycle facility type
User Experience	Sense of place and personal security	The alignment has a <b>negative impact</b> on users sense of place and personal security approaching and traveling along the bridge	The alignment has <b>no impact</b> on users sense of place and personal security approaching and traveling along the bridge	The alignment has a <b>positive impact</b> on users sense of place and personal security approaching and traveling along the bridge	The alignment has a <b>very positive impact</b> on users sense of place and personal security approaching and traveling along the bridge	Qualitative assessment of lighting, noise, ramping, and isolated,
	Cultural and historical experience	The alignment <b>negatively impacts</b> the cultural and historical experience for people in the study area	The alignment has <b>no impact</b> to the cultural and historical experience for people in the study area	The alignment <b>moderately improves</b> the cultural and historical experience for people in the study area	The alignment <b>substantially improves</b> the cultural and historical experience for people in the study area	Qualitative visual assessment, public input with emphasis on indigenous persons perspective
Health	Behavior assessment related to active transportation mode shift	The alignment <b>decreases</b> mode shift towards active modes	The alignment is <b>not</b> expected to create a mode shift towards active modes	The alignment is expected to create <b>some</b> shift towards active modes	The alignment is expected to create a <b>substantial</b> shift towards active modes	Qualitative behavior assessment, informed by demand tool
Environmental	Impact to environmental resources	The alignment <b>negatively</b> impacts environmental resources	The alignment has a <b>neutral</b> impact on environmental resources	N/A	N/A	Stakeholder interviews, input from technical experts, and public meetings
	Impact to cultural resources (Section 106)	The alignment identifies a proposed Finding of <b>Adverse Effect</b> for an eligible historic property	The alignment identifies a proposed Finding of <b>No Adverse Effect</b> for an eligible historic property	N/A	N/A	Input from technical experts, Tribes and SHPO
	Impacts to cultural resources and parks+ resources (Section 4(f))	The alignment identifies a proposed <b>Section 4(f) “use”</b> of a historic site or a parks+ resource, either a permanent incorporation that is <b>more than de minimis</b> or a constructive use	The alignment identifies either <b>no Section 4(f) use</b> of or a Section 4(f) <b>de minimis</b> impact on a historic site or a parks+ resource	N/A	N/A	Input from technical experts and FHWA
Cost	Planning-level cost	<b>High</b> planning-level costs	<b>Moderate</b> planning-level costs	<b>Low</b> planning-level cost	N/A	Planning-level cost estimate
Design Feasibility	Horizontal and vertical bridge approaches and alignments	The alignment requires a grade of <b>primary</b> approaches and/or an alternative that is <b>deterrent</b> to most users	The alignment requires a grade of <b>minor</b> approaches to alternative that are <b>deterrent</b> to most users	The alignment requires a grade of approaches and alternative that is suitable for <b>most</b> users.	The alignment requires a grade of approaches and alternative that is suitable for <b>all</b> users.	Elevation profile, expected paths leading up to the bridge access
	Existing and planned facility networks at approach landings	Existing and planned facility networks at approach landings provide <b>unacceptable</b> access to the bridge for <b>most</b> users	Existing and planned facility networks at approach landings provide <b>acceptable</b> access to the bridge for <b>most</b> users	Existing and planned facility networks at approach landings provide <b>acceptable</b> access to the bridge for <b>all</b> users	Existing and planned facility networks at approach landings provide <b>comfortable</b> access to the bridge for <b>all</b> users	Mapped existing and planned facility networks from local transportation plans
	Clearance to flood elevation	The alignment requires a bridge that does <b>not meet minimum</b> standards for clearance to flood elevation	The alignment allows for a bridge that <b>meets minimum</b> standards for clearance to flood elevation	The alignment allows for a bridge that <b>exceeds minimum</b> standards for clearance to flood elevation	N/A	Elevation profile of floodplain and location of bridge
	River vessel navigational impact	The alignment requires a bridge that <b>reduces</b> the navigable height or width of the river provided by adjacent bridges	The alignment allows for a bridge that has <b>no impact</b> to the navigable height or width of the river provided by adjacent bridges	N/A	N/A	Width of channel between anticipated bridge column location and anticipated height of bridge
	Accommodation of emergency vehicles	The alignment <b>does not provide</b> accessible routes for emergency vehicles	The alignment provides <b>difficult to access</b> routes for emergency vehicles	The alignment provides <b>easily accessible</b> routes for emergency vehicles	N/A	Roadway network
	Properties of sufficient size to serve bridge landing	There are <b>no</b> properties of sufficient size to serve the bridge landing	N/A	There <b>are</b> properties of sufficient size to serve the bridge landing	N/A	Tax lot information for available properties

<sup>1</sup> Qualifying terms, such as “moderate”, “substantial”, and “some” will be defined with respect to the other alternatives during the alternative’s evaluation.

<sup>2</sup> Essential destinations will be identified based on the essential destinations identified in Oregon City, West Linn, and Metro Transportation System Plans (TSP)

## NEXT STEPS

The evaluation criteria will be used to assess the top 5 alignment alternatives identified as part of the initial screening process. The application of the evaluation criteria will inform the selection of a preferred alignment alternative to be advanced for potential adoption into the City of West Linn and City of Oregon City Transportation System Plans (TSPs).

The contents of this document have been reviewed by the Project Management Team (PMT), Project Advisory Committee (PAC), Project Leadership Team (PLT), ODOT, West Linn, Oregon City, Clackamas County, and Metro technical staff<sup>1</sup> and interested government parties including the Confederated Tribes of Grand Ronde, Siletz Indians, Umatilla, Warm Springs Reservation, Bands of the Yakama Nation, and Nez Perce.

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<sup>1</sup> Technical workshop #1 was held on January 11, 2021.

Appendix A  
Purpose and Need

## MEMORANDUM

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Date: February 4, 2021 Project #: 23021.19  
To: Sandra Hikari  
ODOT Region 1 – Major Projects

From: Nick Gross, Amy Griffiths, EIT; Marc Butorac, PE, PTOE, PMP  
Project: Oregon City-West Linn Pedestrian and Bicycle Bridge Concept Plan  
Subject: Purpose and Needs

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This memorandum describes the purpose and needs for the Oregon City-West Linn Pedestrian and Bicycle Bridge Concept Plan (Concept Plan). This memorandum also includes a community profile of the study area, documentation of project needs identified in regional planning documents, and a commitment to an equitable outreach process and equitable project outcomes.

### PROJECT BACKGROUND

Oregon Department of Transportation (ODOT), City of Oregon City, City of West Linn, Clackamas County, and Metro are partnering to investigate the feasibility of a pedestrian and bicycle bridge across the Willamette River connecting Oregon City and West Linn. People walking and biking between the two communities currently use the historic Arch Bridge (OR 43), which provides the only existing local and regional multimodal crossing in the area. The nearest upstream and downstream pedestrian and bicycle crossings are provided via the Canby Ferry<sup>1</sup> (approximately 6 miles south) and the Sellwood Bridge (approximately 8 miles north), respectively. Agency partners are interested in identifying a safe and reliable option to connect the two cities and the regional active transportation network in this area.

In 2016, as part of the I-205 Improvements: Stafford Road to OR 213 Project, ODOT assessed potential facility connections for people walking and biking between the existing I-205 multiuse path in Gladstone and Stafford Road in West Linn<sup>2</sup>. The 2016 pedestrian and bicycle assessment provided high-level engineering considerations for crossing opportunities over the Willamette River. The Concept Plan will build on this earlier work.

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<sup>1</sup>The Canby Ferry requires a fee for pedestrians and bicyclists. Ferry service is often closed due to weather impacts and calendar scheduling.

<sup>2</sup> Appendix “A” includes the I-205: Stafford Road to OR 99E (Abernethy Bridge) Bicycle/Pedestrian Assessment.

## BRIDGING COMMUNITIES

Project staff will work to intentionally to integrate equity at every step of the planning and engagement process for the Concept Plan. This will establish a new standard of practice to operationalize equity based on unique project needs and allow the public to participate in this process to reimagine this pedestrian and bicycle crossing alignment. The focus of this planning process is to identify a preferred bridge alignment that:

- Is informed by the area’s historical significance and complex geography,
- Completes the area’s active transportation network,
- Provides opportunities for future public and private investments along the banks of the Willamette,
- Does not displace or negatively impact historically marginalized communities and uplifts individuals and businesses equitably.

The concept planning effort will work to create a realistic and constructable concept alignment that is supported by the communities on both sides of the river, addresses regional active transportation connectivity, and establishes a clear path forward to local adoption and implementation. ***The Concept Plan will not identify the aesthetic, type, or size of the ultimate bridge alignment.***

## PURPOSE AND NEEDS STATEMENT

The purpose of the Concept Plan is to identify and select a preferred bridge alignment for people walking, biking, and rolling across the Willamette River to connect the communities of Oregon City and West Linn, enhance safety, and improve regional connectivity. The Concept Plan will explore potential bridge alignments south of the I-205 Abernethy Bridge and within the vicinity of the existing historic Arch Bridge. Within the Concept Plan, the need for a new bridge is to:

- **Address Historic Arch Bridge deficiencies for people walking, biking, and rolling** – The existing historic Arch Bridge (OR 43) connects the two communities and has served the region for almost 100 years. The historic Arch Bridge lacks dedicated facilities for people biking and presents issues related to the Americans with Disabilities Act (ADA) of 1990 due to the existing grade (approximately 6 percent) and substandard sidewalk widths.
- **Identify a new low-stress, comfortable, and designated connection across the Willamette River to increase experience for people walking, biking, and rolling** – A new low-stress connection between Oregon City and West Linn will provide a key linkage within the southeastern portion of the Portland metropolitan area and will be accessible for all ages and abilities.
- **Connect existing and planned walking, biking, and rolling networks** – A new connection for people walking, biking, and rolling across the Willamette River will connect the existing and planned regionally significant active transportation routes on the east (I-205 multiuse path, Willamette Terrace, Riverwalk) and west (Willamette Falls Drive and OR 43 cycle tracks) sides of the Willamette River. A new connection will increase access to existing destinations and the future Willamette Falls Legacy Project Riverwalk.

- **Enhance accessibility and cultural experience of historic resources** – A new connection for people walking, biking, and rolling will provide access and the opportunity to experience and visually imagine the historic significance of the river, falls, and adjacent lands. Special attention will be given to the indigenous connections to the land, honoring active approaches to transportation across the river, and acknowledging traditional ways of movement across waterways.
- **Create opportunities for economic and community development** – A new connection for people walking, biking, and rolling will provide certainty and may facilitate investment opportunities in the Old City Hall District, Industrial Heritage District, Willamette Falls Legacy Project, and downtown Oregon City.
- **Minimize environmental impacts** – A new connection designated for people walking, biking, and rolling will serve an opportunity for transportation mode shifts, lowering local and regional carbon footprints. The physical design of the bridge will adhere strictly to standards that negate localized environmental impacts and do not inflict harm on the river or nearby communities.

## PROJECT STUDY AREA

There is a complex system of existing and planned active transportation facilities running parallel to the Willamette River between Gladstone, Oregon City, West Linn, and Tualatin. Today, people walking, and biking use the Arch Bridge as their primary connection between these communities. This historic structure requires cyclists to share the narrow travel lanes (about 10 feet) with vehicles and people who are walking across the bridge to use the non-ADA compliant sidewalk.

Based on the findings from ODOT's 2016 pedestrian and bicycle assessment, the study area for the Concept Plan will focus on the segment of the Willamette River between Willamette Falls and the I-205 Abernethy Bridge. Figure 1 illustrates the Concept Plan study area.



H:\23\3302.1 - Transportation and Land Use Planning\019 - Willamette River Ped-Bike Crossing\GIS Task\3.01 - Study Area\mxd Date: 12/23/2020

-  Focus Study Area
-  Urban Growth Boundary
-  Oregon City
-  West Linn



Figure 1

## COMMUNITY PROFILE

The 2018 American Community Survey (ACS)<sup>3</sup> data at the block group level was analyzed to identify areas with high numbers of residents who historically face transportation barriers and environmental justice communities that have been traditionally underserved. The analysis includes (as categorized by ACS):

- People of color
- Hispanic populations
- Elderly populations (over age 64) and youth populations (under 18)
- Individuals experiencing low-income situations (income under 200% of the federal poverty line)
- Crowded households (households with more than one person per room)

There is a significant portion of individuals over the age of 64 and under the age of 18 living in the study area. These populations rely on separated, comfortable, and low-stress infrastructure to access essential destinations and locations of daily needs. Table 1 summarizes demographics data for Clackamas County, Oregon City, and West Linn.

**Table 1: Demographics by Jurisdiction**

Demographic	Clackamas County	Oregon City <sup>1</sup>	West Linn <sup>1</sup>
People of color	12.0%	9.9%	12.6%
Hispanic populations	8.5%	6.8%	5.0%
Elderly populations	17.0%	15.6%	15.2%
Youth populations	21.9%	23.0%	24.7%
Individuals experiencing low-income situations	20.9%	20.6%	12.3%
Crowded households	2.5%	3.7%	2.5%

<sup>1</sup>ACS block group data was conglomerated based on boundaries to estimate percentages for cities. "People of color" includes "Black or African American," "American Indian and Alaska Native," "Asian," "Native Hawaiian and Other Pacific Islander," "Some Other Race Alone," and "Two or More Races."

*Appendix "B" includes maps of residents who historically face more transportation barriers.*

The maps and supporting data will be used as part of the active transportation network analysis and contribute to the evaluation of potential bridge alignment alternatives.

<sup>3</sup>The 2018 ACS is the most recent dataset available and includes 2014, 2015, 2016, 2017, and 2018.

## EQUITY

The consultant will analyze potential bridge alignments to determine the benefits and burdens that this development will accrue, including but not limited to current and historic cultural significance, health outcomes, right-of-way access, connections to existing pedestrian and bicycle infrastructure, traffic, safety, and cost. The preferred alignment will support people of all ages and abilities access across the Willamette River and help conserve viewsheds of the historically and culturally significant Willamette Falls.

Equity will be at the forefront of determining the ideal bridge alignment. Human-centered design will be used in an effort to make the bridge accessible to diverse users. Consultants will engage directly with communities of color and low-income individuals who are impacted and excluded by previous inequitable development to identify how infrastructure projects can respond to the needs of the most vulnerable community members. Through identifying the needs of likely bridge users at the outset, it will be possible to minimize the burdens felt by currently underrepresented stakeholders and work toward an equitable distribution of benefits.

The Public Involvement and Communications Plan (PICP) outlines a process that elevates the voices of indigenous people who have ancestral connections to the Willamette Falls and adjacent lands as well as other communities of color and low-income individuals through their participation in the Project Advisory Committee (PAC). It will also provide engagement opportunities to gather input from local seniors and youth who may be more dependent on low-stress transportation infrastructure.

## NEXT STEPS

The Purpose and Needs Statement will inform the evaluation criteria and concept development for a low-stress connection across the Willamette River between the cities of West Linn and Oregon City.

The contents of this document have been reviewed by the Project Management Team (PMT), (PAC), Project Leadership Team (PLT), ODOT, West Linn, Oregon City, Clackamas County, and Metro technical staff<sup>4</sup> and interested government parties including the Confederated Tribes of Grand Ronde, Siletz Indians, Umatilla, Warm Springs Reservation, Bands of the Yakama Nation, and Nez Perce to produce the Final Purpose and Needs.

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<sup>4</sup> Technical workshop #1 was held on January 11, 2021.

## Appendix B Example Scoring

**Example Alternative: Restricting OR 43 Oregon City Arch Bridge to Only Walking, Biking, and Rolling<sup>2</sup>**

Evaluation Criterion	Criterion Score	Performance Measure Rating	Methodology
Equity	-1	0	Social and economic power mapping: The alignment has no significant impact to vulnerable groups identified in power mapping
		-1	Public support: This alignment has primarily negative responses due to need to reroute vehicle traffic
Demand & Access	1.5	+1	Projected bicycle and pedestrian trips: This alignment is expected to moderately increase bike and pedestrian trips
		+2	Community access to essential destinations (within a half-mile radius): Many essential destinations are located within a half mile radius of the bridge alignment
Transportation Safety	1	+1	PLTS Network: Users can access the bridge on moderately low-stress connections.
		+1	BLTS Network: Users can access the bridge on moderately low-stress connections.
User Experience	0.5	+1	Personal security: The alignment provides sufficient personal security for users approaching and traveling along the bridge
		0	Cultural and historical experience: The alignment has no impact on cultural and historic resources for people in the study area
Health	1	+1	Mode shift to active transport: This alignment is expected to create some shift towards active modes
Environmental	-0.3	0	Impact to cultural and environmental resources: The alignment has a neutral impact on cultural and environmental resources
		0	Section 106 considerations: The alignment identifies a proposed finding of no adverse effect.
		-1	Section 4(f) considerations: The alignment identifies Section 4(f) "use" of a historic site
Cost	1	+1	Planning-level cost: Low-cost
Design Feasibility	0.3	-1	Horizontal and vertical bridge approaches and alignments: The alignment requires a grade of primary approaches and/or an alternative that is deterrent to most users
		0	Existing and planned facility networks at approach landings provide acceptable access to the bridge for most users
		+1	Clearance to flood elevation: The alignment exceeds minimum standards for flood elevation
		0	River vessel navigational impact: The alignment has no impact to the navigable height or width of the river
		+1	Accommodation of emergency vehicles: The alignment currently provides an easily accessible route for emergency vehicles
		+1	Properties of sufficient size to serve bridge landing: The bridge is already constructed
<b>Total Score</b>	<b>4 points</b>		

<sup>2</sup> The scoring provides an example of the evaluation criteria and performance metrics; however, the methodology includes incomplete data and analysis. The scoring for this particular project would need to be refined in the project development process if it is considered in Task 4 of this project.

Example Alternative: Pedestrian and Bicycle bridge immediately South of the OR 43 Oregon City Arch Bridge

Evaluation Criterion	Criterion Score	Performance Measure Rating	Methodology
Equity	1	+1	Social and economic power mapping: The alignment moderately enhances access to the community for vulnerable groups identified in power mapping
		+1	Public support: The alignment has moderately positive public responses
Demand & Access	2	+2	Projected bicycle and pedestrian trips: This alignment is expected to substantially increase bike and pedestrian trips
		+2	Community access to essential destinations (within a half-mile radius): Many essential destinations are located within a half mile radius of the bridge alignment
Transportation Safety	1	+1	PLTS Network: Users can access the bridge on moderately low-stress connections.
		+1	BLTS Network: Users can access the bridge on moderately low-stress connections.
User Experience	1	+1	Personal security: The alignment provides sufficient personal security for users approaching and traveling along the bridge
		+1	Cultural and historic experience: The alignment moderately improves the cultural and historical experience for people in the study area.
Health	2	+2	Mode shift to active transport: This alignment is expected to create a substantial shift towards active modes
Environmental	-6	0	Impact to environmental resources: The alignment does not identify impacts to environmental resources
		-1	Impact to cultural resources (Section 106): The alignment identifies a proposed finding of adverse effect
		-1	Section 4(f) considerations: The alignment identifies Section 4(f) "use" of a historic site
Cost	0	0	Planning-level cost: Moderate cost with respect to alternatives
Design Feasibility	0.3	-1	Horizontal and vertical bridge approaches and alignments: The alignment requires a grade of primary approaches and/or an alternative that is deterrent to most users
		0	Existing and planned facility networks at approach landings provide acceptable access to the bridge for most users
		+1	Clearance to flood elevation: The alignment meets minimum standards for flood elevation
		0	River vessel navigational impact: The alignment has no impact to the navigable height or width of the river
		+1	Accommodation of emergency vehicles: The alignment would provide an easily accessible route for emergency vehicles
		+1	Properties of sufficient size to serve bridge landing: Would need to purchase the parking lot between Grand Ballroom and Superior Radiator Inc.
<b>Total Score</b>	<b>6.7 points</b>		