Social/Neighborhood Supplemental Memorandum

Multnomah County | Earthquake Ready Burnside Bridge Project

Portland, OR

April 22, 2022

Earthquake Ready Burnside Bridge Social/Neighborhoods Supplemental Memorandum

Prepared for

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Contents

Tables

Figures

Acronyms, Initialisms, and Abbreviations

ADA	Americans with Disabilities Act
API	Area of Potential Impact
Draft EIS	Draft Environmental Impact Statement
EIS	environmental impact statement
EQRB	Earthquake Ready Burnside Bridge
I-5	Interstate 5
I-84	Interstate 84
SDEIS	Supplemental Draft Environmental Impact Statement

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Executive Summary

The impacts to social/neighborhood resources from the Refined Long-span Alternative are similar to those from the Draft EIS Long-span Alternative and are an improvement to existing bridge conditions. The Refined Long-span Alternative would still provide more space for Waterfront Park users under the bridge compared to the existing bridge, and new stairs and elevators would improve access and connections for all users.

1 Introduction

In support of the Supplemental Draft Environmental Impact Statement (SDEIS) for the Earthquake Ready Burnside Bridge (EQRB) Project, this supplemental technical memorandum has been prepared to evaluate the impacts of potential refinements to the Preferred Alternative on social/neighborhood resources within the project's Area of Potential Impact (API). The intent of the design modifications is to reduce the overall cost and improve the affordability of the EQRB Project. This technical memorandum is a supplement to the Draft EIS technical reports and as such does not repeat all the information in those reports, but instead focuses on the impacts of the design modification options, how they compare to each other, and how they compare to the version of the Preferred Alternative that was evaluated in the *EQRB Draft Environmental Impact Statement* (Multnomah County 2021b).

Much of the information included in the Draft EIS and Draft EIS technical reports, including project purpose, relevant regulations, analysis methodology and affected environment, is incorporated by reference because it has not changed, except where noted in this technical memorandum.

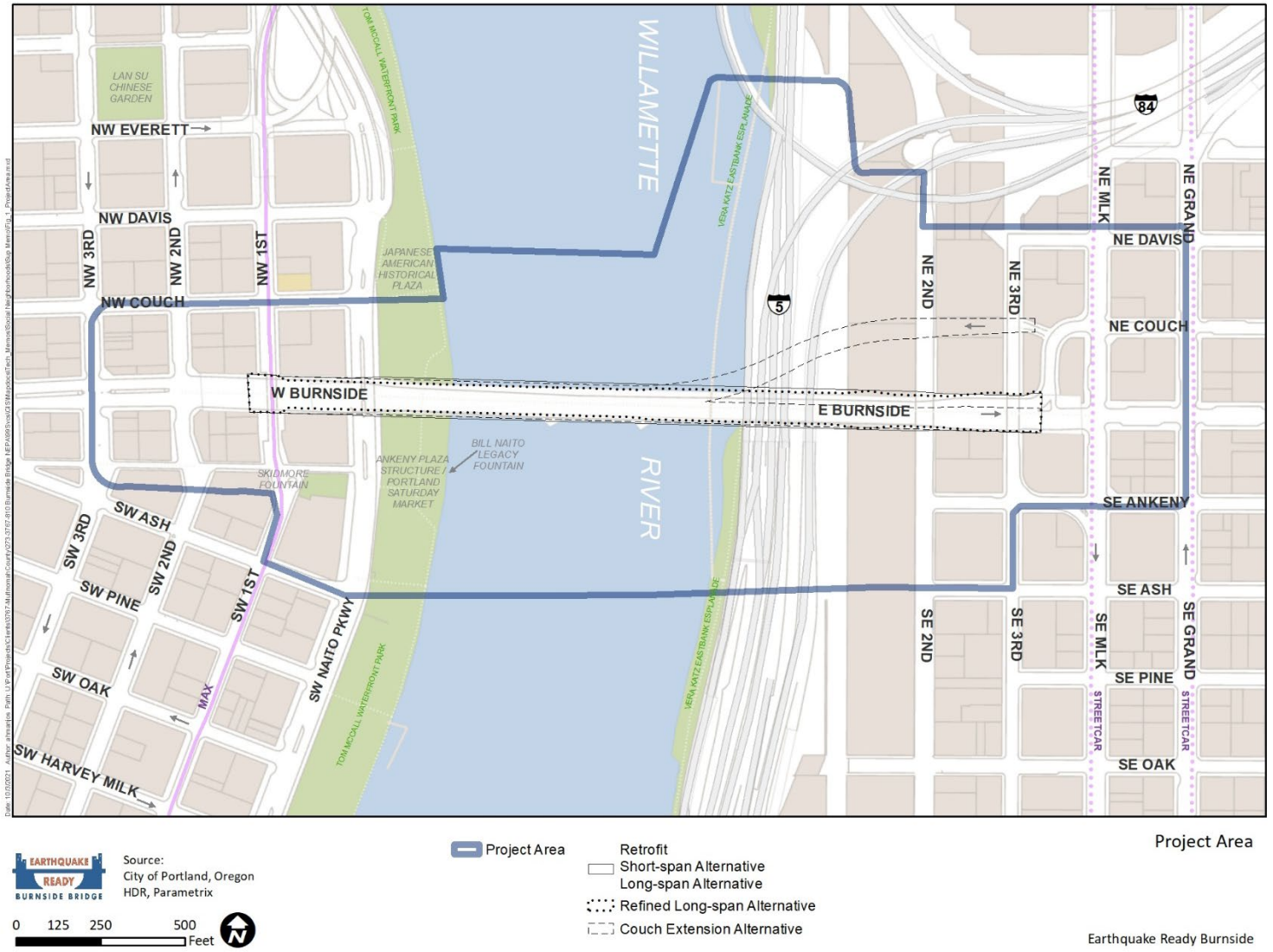
1.1 Project Location

The Project Area is located within the central city of Portland. The Burnside Bridge crosses the Willamette River connecting the west and east sides of the city. The Project Area encompasses a one-block radius around the existing Burnside Bridge and W/E Burnside Street, from NW/SW 3rd Avenue on the west side of the river and NE/SE Grand Avenue on the east side. Several neighborhoods surround the area including Old Town/Chinatown, Downtown, Kerns, and Buckman. Figure 1 shows the Project Area.

1.2 Project Purpose

The primary purpose of the Project is to build a seismically resilient Burnside Street lifeline crossing over the Willamette River that will remain fully operational and accessible for vehicles and other modes of transportation following a major Cascadia Subduction Zone earthquake. The Burnside Bridge will provide a reliable crossing for emergency response, evacuation, and economic recovery after an earthquake. Additionally, the bridge will provide a multimodal, long-term safe crossing with low maintenance needs. The full project purpose and need can be found in the EQRB Draft EIS, Chapter 1.

Figure 1. Project Area



2 Project Alternatives

This technical memorandum evaluates potential design refinements to the Draft EIS Preferred Alternative. All of the Project Alternatives evaluated in the Draft EIS are summarized in Chapter 2 of the Draft EIS and described in detail in the *EQRB Description of Alternatives Report* (Multnomah County 2021a). Briefly, the Draft EIS evaluated a No Build Alternative and four Build Alternatives. One of the Build Alternatives, the Long-span Alternative, was identified as the Preferred Alternative. The potential refinements evaluated in this technical memorandum are collectively referred to as the Refined Long-span Alternative (Four-lane Version) or the Refined Long-span. The Refined Long-span includes Project elements that were studied in the Draft EIS but have been modified as well as new options that were not studied in the Draft EIS. These potential refinements and new options are intended to provide lower cost and, in some cases, lower impact designs and ideas that could be adopted to reduce the cost of the Draft EIS Preferred Alternative while still achieving seismic resiliency. The potential design refinements, and how they differ from the Draft EIS Long span Alternative, are described below.

- Bridge width – The total width of the bridge over the river would be approximately 82 to 93 feet (the range varies depending on the bridge type and segment). For comparison, the Draft EIS Replacement Alternatives were approximately 110 to 120 feet wide over the river. The refined bridge width would accommodate approximately 78 feet for vehicle lanes, bike lanes, and pedestrians, which is comparable to the existing bridge.
    - The refined bridge design would accommodate four vehicle lanes (rather than five as evaluated in the Draft EIS). The following lane configuration options are being evaluated:
        - Lane Option 1 (Balanced) – Two westbound lanes (general-purpose) plus two eastbound lanes (one general-purpose and one bus-only lane)
        - Lane Option 2 (Eastbound Focus) – One westbound lane (general-purpose) plus three eastbound lanes (two general purpose and one bus only)
        - Lane Option 3 (Reversible Lane) – One westbound lane (general-purpose) plus two eastbound lanes (one general-purpose and one bus-only) plus one reversible lane (westbound AM peak and eastbound PM peak)
        - Lane Option 4 (General Purpose with Bus Priority) – Two westbound general-purpose lanes plus two eastbound general-purpose lanes, plus bus priority access (e.g., queue bypass) at each end of the bridge.
    - The width of the vehicle lanes would be, at minimum, 10 feet and could vary depending on how the total bridge width is allocated between the different modes.
    - The total width of the bicycle lanes and pedestrian sidewalks would be approximately 28 to 34 feet. This is wider than the existing bridge but narrower than what was described in the Draft EIS for the Replacement Alternatives.

Physical barriers between vehicle lanes and the bicycle lanes would be in addition to the above dimensions.

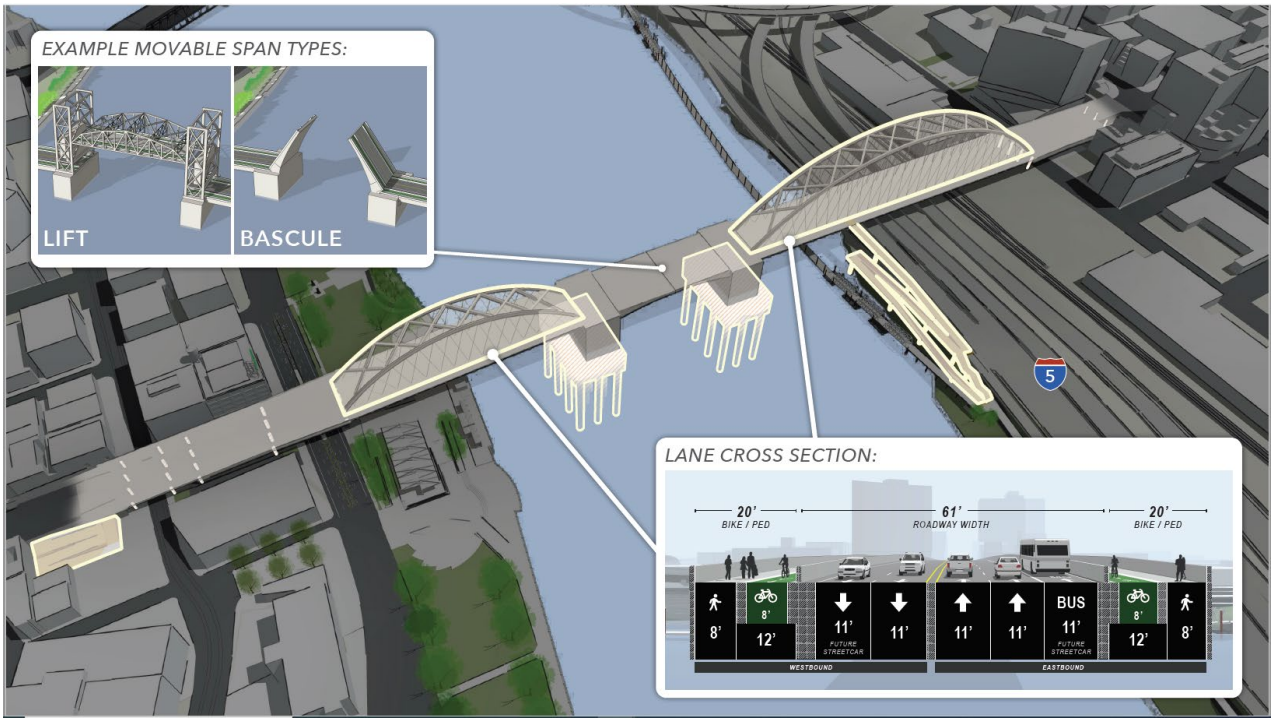
  - The refined bridge would allow narrower in-water piers, due to less weight needing to be transferred to the in-water supports.

- Other design refinements being evaluated:
  - West approach – This memo evaluates a refined girder bridge type for the approach over the west channel of the river, Waterfront Park, and Naito Parkway. Compared to the cable-stayed and tied-arch options evaluated in the Draft EIS, this option would not only reduce costs but also avoid an adverse effect to the Skidmore/Old Town National Historic Landmark District. It would have two sets of columns in Waterfront Park compared to just one with the Draft EIS tied-arch option and five with the existing bridge.
  - East approach – This memo evaluates a potential span length change for the east approach tied-arch option that would minimize the risks and reduce costs associated with placing a pier and foundation in the geologic hazard zone that extends from the river to about E 2nd Avenue. The refined tied-arch option would be about 720 to 820 feet long and approximately 150 feet tall (the Draft EIS Long-span Alternative was the same height and 740 feet long). The refined alternative would place the eastern pier of the tied-arch span either on the east side of 2nd Avenue (Option 1) or just west of 2nd Avenue (Option 2). Increasing the length of the tied-arch span would also reduce the length and depth of the subsequent girder span to the east.
  - Americans with Disabilities Act (ADA) access – This memo evaluates a refined approach for providing direct ADA access between the bridge and the Vera Katz Eastbank Esplanade, as well as between the bridge and W 1st Avenue and the Skidmore Fountain MAX station. The Draft EIS evaluated multiple ramp, stair, and elevator options for these locations. This SDEIS memo evaluates a refined option that would provide enhanced ADA access at both locations using both elevators and stairs. These facilities would also provide pedestrian and potentially bicycle access. For the west end, there is also the potential for replacing the existing stairs with improved sidewalk access from the west end of the bridge to 1st Avenue.

Figure 3 highlights the elements of the Draft EIS Long-span Alternative that have been modified to create the Refined Long-span Alternative, as described above. Figure 2 shows the Draft EIS Long-span Alternative and Figure 3 shows the Refined Long-span Alternative. Both figures include the tied-arch option for the east approach and the bascule option for the center movable span, but the east span could also be a cable-stayed bridge and the movable span could be a vertical lift bridge. For the west approach, the Draft EIS Long-span Alternative shows the tied-arch option while the Refined Long-span shows the refined girder bridge. The Refined Long-span Alternative image shows just one of the four possible lane configuration options being studied. All four configuration options, as well as many more graphics of the Refined Long-span Alternative, and how it compares to the Draft EIS Long-span Alternative, can be found in Chapter 2 of the *EQRB Supplemental Draft Environmental Impact Statement* (Multnomah County 2022). Figure 3 also shows just one of the possible ways to allocate

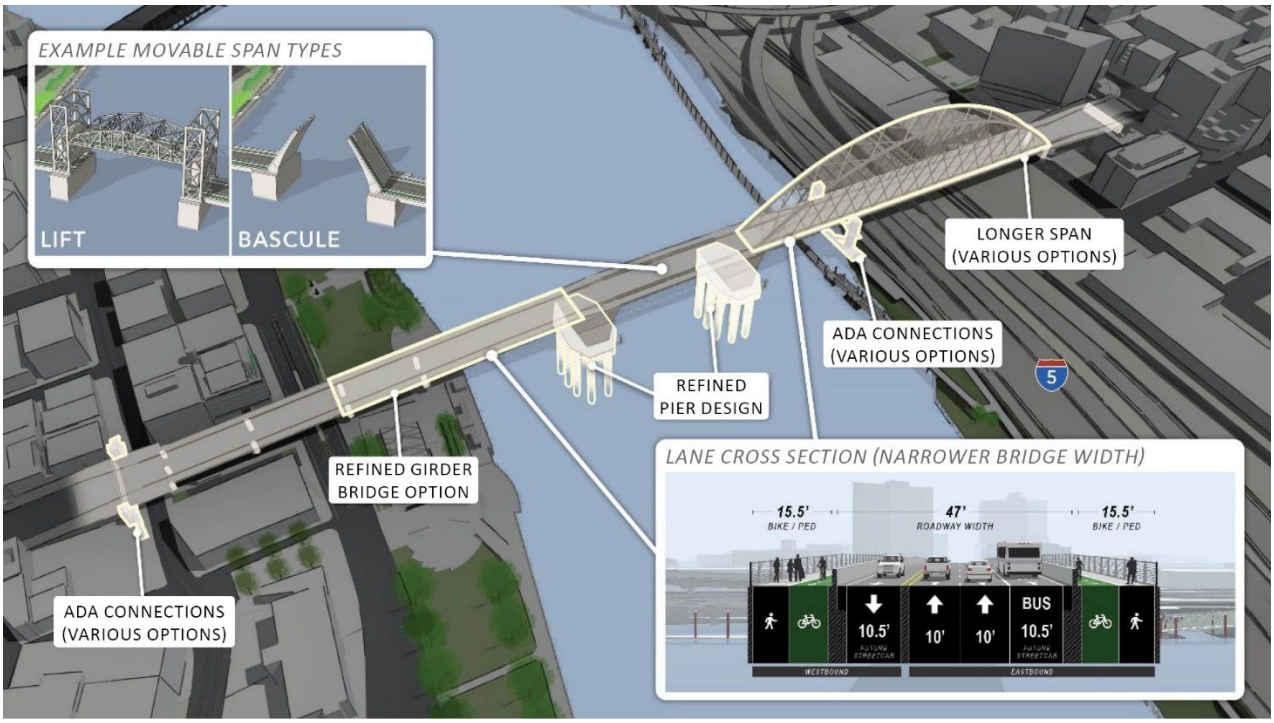
the bridge width between vehicle lanes, bicycle lanes, and sidewalks; the total width of the bicycle and pedestrian facilities could range from approximately 28 to 34 feet.

Figure 2. Draft EIS Long-Span Alternative



Note: The Draft EIS Long-span Alternative included multiple bridge types for both the east and west approaches. This figure shows only the tied-arch option.

Figure 3. Refined Long-Span Alternative



Notes: The Refined Long-span Alternative evaluated in this SDEIS includes both cable-stayed and tied- arch options for the east span. This figure shows only the tied- arch option. The Draft EIS studied, and SDEIS further studies, a bascule option and vertical lift option for the center movable span. The inset shows both options but the main figure shows the bascule option. This figure also shows just one of the lane configuration options considered in the SDEIS.

- Construction assumptions:
  - Construction duration – The expected duration of project construction is 4.5 to 5.5 years, dependent upon the design option. See Table 1 for more information regarding construction impact extent and closure timeframes.
  - Construction area – Compared to the Draft EIS Long-span Alternative, the main refinement is that the construction area would be smaller for the west approach south of the bridge, including a smaller area within Waterfront Park south of the bridge,
  - Construction access and staging – The construction access and staging is expected to be the same as that described in the Draft EIS.
  - Vegetation – The Refined Long-span would remove slightly fewer trees and vegetation impacts than the Draft EIS Long-span, primarily within Waterfront Park south of the bridge.
  - In-water work activity – The in-water work would be similar to that described in the Draft EIS, except that the replacement bridge in-water foundations would consist of a perched footing cap and a group of drilled shafts. Whereas the Draft EIS discusses the use of cofferdams to isolate in water work, the Refined Long-span Alternative would use a temporary caisson lowered to an elevation about mid height of the water column to construct footing caps, avoiding additional disturbance of the riverbed that would needed for a cofferdam. Additionally, the existing Pier 4 would be fully removed, Pier 1 would be partially removed below the mudline, and Piers 2 and 3 would be removed to below the mudline. Existing in water piles would be removed, subject to the design option advanced.
  - Temporary freeway, rail, street, and trail closures – Temporary closures are expected to be the same as those described in the Draft EIS.
  - Access for pedestrians and vehicles to businesses, residences, and public services – Access is expected to be the same as that described in the Draft EIS.
  - On-street parking impacts – On-street parking impacts are expected to be the same as those described in the Draft EIS.
  - Property acquisitions and relocations – Property acquisitions and relocations are similar to those listed in the Draft EIS, except that they have been modified to reflect a narrower set of bridge design options.
  - Temporary use of Governor Tom McCall Waterfront Park – The park area that would be temporarily closed for construction has changed since the Draft EIS. On the north side of the bridge, the closure area has been reduced to avoid removing 10 cherry trees and a berm that are part of the Japanese American Historical Plaza; this change would apply to all of the build alternatives. On the south side of the bridge, the park closure area has also been reduced to include

only the area north of the Tom McCall Waterfront Park trellis; this revision applies only to the Refined Long-span Alternative.

Table 1. Construction Impacts, Closure Extents, and Timeframes by Build Alternative

Facility Impacted	Draft EIS Long-Span Alternative	Refined Long-Span Alternative
Gov. Tom McCall Waterfront Park	4.5-year closure within boundary of potential construction impacts	Same; Smaller closure area south of the bridge
Willamette River Greenway Trail	Portion of trail within Waterfront Park closed for same duration as park; detours in place for construction duration	Same
Japanese American Historical Plaza	Southern portion of plaza would be closed for same duration as Waterfront Park	Same
Ankeny Plaza Structure	Closure for duration of construction but no impacts to Ankeny Plaza structure	Plaza structure would not be closed during construction or impacted
Bill Naito Legacy Fountain	No closure of fountain and associated hardscape	Same
Vera Katz Eastbank Esplanade	18 months (this could extend to 3.5 to 4.5 years if project builds ramps rather than elevators and stairs for the ADA/bicycle/pedestrian connection); detours in place for construction duration	Same
Burnside Skatepark	4 months full closure	Same
River Crossing on Burnside Street	4- to 5-year closure	Same
Saturday Market Location	4.5-year closure or use of alternative location	Same
Skidmore Fountain MAX Station	Approximately 5 weeks	Same
Navigation Channel/Willamette River Water Trail	Intermittent closures; 2 to 10 closures; each closure up to 3 weeks	Same
Overall Construction Duration	4.5 to 5.5 years	Same

3 Definitions

The following terminology is used when discussing geographic areas in the EIS:

- **Project Area** – The area within which improvements associated with the Project Alternatives would occur and the area needed to construct these improvements. The Project Area includes the area needed to construct all permanent infrastructure,

including adjacent parcels where modifications are required for associated work such as utility realignments or upgrades. For the EQRB Project, the Project Area includes approximately a one-block radius around the existing Burnside Bridge and W/E Burnside Street, from NW/SW 3rd Avenue on the west side of the river and NE/SE Grand Avenue on the east side.

- **Area of Potential Impact (API)** – This is the geographic boundary within which physical impacts to the environment could occur with the Project Alternatives. The API is resource-specific and differs depending on the environmental topic being addressed. For all topics, the API will encompass the Project Area, and for some topics, the geographic extent of the API will be the same as that for the Project Area; for other topics (such as for transportation effects) the API will be substantially larger to account for impacts that could occur outside of the Project Area. The API for social/neighborhood resources is defined in Section 5.1 of the *EQRB Social/Neighborhoods Technical Report* (Multnomah County 2021c).
- **Project vicinity** – The environs surrounding the Project Area. The project vicinity does not have a distinct geographic boundary but is used in general discussion to denote the larger area, inclusive of the Old Town/Chinatown, Downtown, Kerns, and Buckman neighborhoods.

4 Relevant Regulations

There are no updated regulations to this Supplemental Draft EIS Memorandum. All current relevant regulations are included in the *EQRB Social/Neighborhoods Technical Report* (Multnomah County 2021c).

5 Analysis Methodology

No changes have been made to this Supplemental Draft EIS Memorandum analysis methodology. Analysis methodology is described in the *EQRB Social/Neighborhoods Technical Report*.

6 Affected Environment

The affected environment as described in the *EQRB Social/Neighborhoods Technical Report* has not changed.

7 Impacts from the Design Modifications and Comparison to Draft EIS Alternatives

7.1 Pre-Earthquake Impacts

Table 2 includes the refinement elements that could affect social and neighborhood resources and provides a brief description of the impacts compared to the Draft EIS Long-span Alternative and the No-Build Alternative.

Table 2. Summary of Effects for Social and Neighborhood Resources

Refined Long-Span Alternative	How the refinement affects impacts, compared to the Draft EIS Long-span and No-Build or Existing
Bridge width – The total width of the bridge over the river would be approximately 82–93 feet (range varies with bridge type and segment); by comparison, the Draft EIS Replacement alternatives were approximately 110–120 feet wide over the river. The refined bridge width would accommodate approximately 78 feet for vehicles lanes, bike lanes and pedestrians, which is comparable to the existing bridge.	Narrower shaded area over Waterfront Park and the Eastbank Esplanade, compared to the Draft EIS Long-span. This would provide a more open feeling for users. Narrower pedestrian and bike lanes could increase the potential risk for pedestrian/bike interactions which could affect accessibility and usage, especially for disabled populations compared to the Draft EIS Long-span Alternative.
Lane configuration – The refined bridge design would accommodate four vehicle lanes (rather than five as evaluated in the Draft EIS). The following lane configuration options are being evaluated. • Lane Option 1 (Balanced) – Two westbound lanes (general-purpose) plus two eastbound lanes (one general-purpose and one bus-only lane) • Lane Option 2 (Eastbound Focus) – One westbound lane (general-purpose) plus three eastbound lanes (two general purpose and one bus only) • Lane Option 3 (Reversible Lane) – One westbound lane (general-purpose) plus two eastbound lanes (one general-purpose and one bus-only) plus one reversible lane (westbound AM peak and eastbound PM peak) • Lane Option 4 (General Purpose with Bus Priority) – Two westbound general-purpose lanes plus two eastbound general-purpose lanes, plus bus priority access (e.g., queue bypass) at each end of the bridge.	Lane Option 1 consists of one less eastbound general-purpose lane compared to the Draft EIS Long-span and No-Build Alternatives. During PM peak hour, westbound bus travel times under this option are slower and reliability is worse than Options 2 or 3. Lane Options 2 and 3 provide the best westbound travel times, but slower eastbound travel times than Option 1. Lane Option 4 provides the slowest bus travel times for westbound and eastbound travel reducing reliability for bus riders needing to make connections on time or accessing services on either side of the bridge compared to existing lane configurations and the Draft EIS lane configurations.
Bicycle and pedestrian lanes – The total width of the bicycle lanes and pedestrian sidewalks could be approximately 28 to 34 feet, which would be wider than the bike-ped facilities for any of the existing downtown bridges but would be 6 to 12 feet narrower than what was described in the Draft EIS for the replacement alternatives. Physical barriers between vehicle lanes and the bicycle lanes would be in addition to the above dimensions.	Providing less width for the pedestrian and bicycle lanes could increase the potential risk for pedestrian/bike interactions which could affect accessibility and usage, especially for disabled populations. However, given that the width would be greater than on any of the existing downtown bridges, the bridge may encourage greater bicyclist, pedestrian, and ADA use compared to existing conditions.

Refined Long-Span Alternative	How the refinement affects impacts, compared to the Draft EIS Long-span and No-Build or Existing
West approach – This memo evaluates a refined girder bridge type for the approach over the west channel of the river, Waterfront Park, and Naito Parkway. Compared to the cable-stayed and tied-arch options evaluated in the Draft EIS, this option would not only reduce costs but also avoid an adverse effect to the Skidmore/Old Town National Historic Landmark District. It would have two sets of columns in Waterfront Park compared to just one with the tied-arch option and five with the existing bridge.	The Refined Long-span Alternative includes two sets of bridge columns within the park, thereby providing less new open space compared with the Draft EIS Long-span Alternative which would have just one set of support columns. The Refined Long-span provides more open space than the No-Build Alternative which has five sets of columns in the park.
ADA access to other facilities – This memo evaluates an option to provide ramps/stairs access between the bridge and the Eastbank Esplanade. It also evaluates a ramps/stairs option and an improved sidewalk option for upgraded access between the bridge and W First Avenue including the Skidmore Fountain MAX station. The Draft EIS evaluated multiple ramp, stairs, and elevator options for the Esplanade connection and evaluated potential ramps/stairs options for 1st Avenue. For the Esplanade connection, the Project could also reconnect the City's existing stairway and allow any upgraded connections to be implemented by the City as a separate, future project.	New stairs and elevators would improve access and connections for all users compared to the No-Build Alternative. At the Esplanade ramps or elevators on both sides of the bridge would provide access to both travel directions, increasing accessibility. Elevators have security and reliability concerns. Ramps have a much larger footprint, and have security and safety concerns (an Esplanade connection ramp would be a long climb or descent (about 1,000 feet long) which could discourage some users).
Construction area – Revised construction area south of the west end of the bridge within Waterfront Park has a smaller footprint than that described in the Draft EIS.	Smaller Boundary of Potential Construction Impacts (i.e., construction area) on the south side of the bridge means less area would be closed during the full construction period. More space would be available for park users.

7.1.1 Neighborhood Cohesion and Quality of Life

The existing bridge has five sets of bridge support columns in Waterfront Park. Comparatively, the Draft EIS Long-span Alternative includes one set, and the Refined Long-span Alternative would have two sets of bridge columns within Waterfront Park. The Refined Long-span would provide more open space under the bridge for park users compared with the No-Build Alternative but less than with the Draft EIS Long-span (see Figure 4 through Figure 7).

The narrower bridge included in the Refined Long-span Alternative would reduce the amount of shaded area over Waterfront Park and the Eastbank Esplanade compared with the Draft EIS Long-span Alternative. This would provide more natural light contributing to a more open feel for users and events and activities hosted under the bridge and would be similar to the No-Build Alternative.

The refinements to ADA access, adding new stairs and elevators, would improve access for all users compared with the No-Build Alternative (see Figure 8 and Figure 9). Potential impacts could occur if elevators on the east side are out of commission, as there is not an eastside alternate ADA or bicycle-friendly access option (elevator and

stairs). On the west side, the sidewalk could be used as an alternate access between the bridge and 1st Avenue.

The Refined Long-span Alternative would provide more space for sidewalks and bicycle lanes than the No-Build Alternative; more space could lower the potential risk for pedestrian and bicycle interactions compared to the existing bridge (No-Build Alternative). However the Refined Alternative (with 14 to 17 feet of sidewalk and bike lane in each direction) would not reduce the risk as much as the Draft EIS Long-span (20 feet of sidewalk and bike lane in each direction) (see Figure 10 and Figure 11). The Portland Bureau of Transportation recommends a minimum active transportation space of 17 feet. The 14-foot- or 15.5-foot-wide options could affect accessibility and usage, especially for individuals with physical or mental disabilities.

Figure 4. View from Ankeny Pump Station – Existing

Figure 5. View from Ankeny Pump Station – Draft EIS Long-Span Tied-Arch

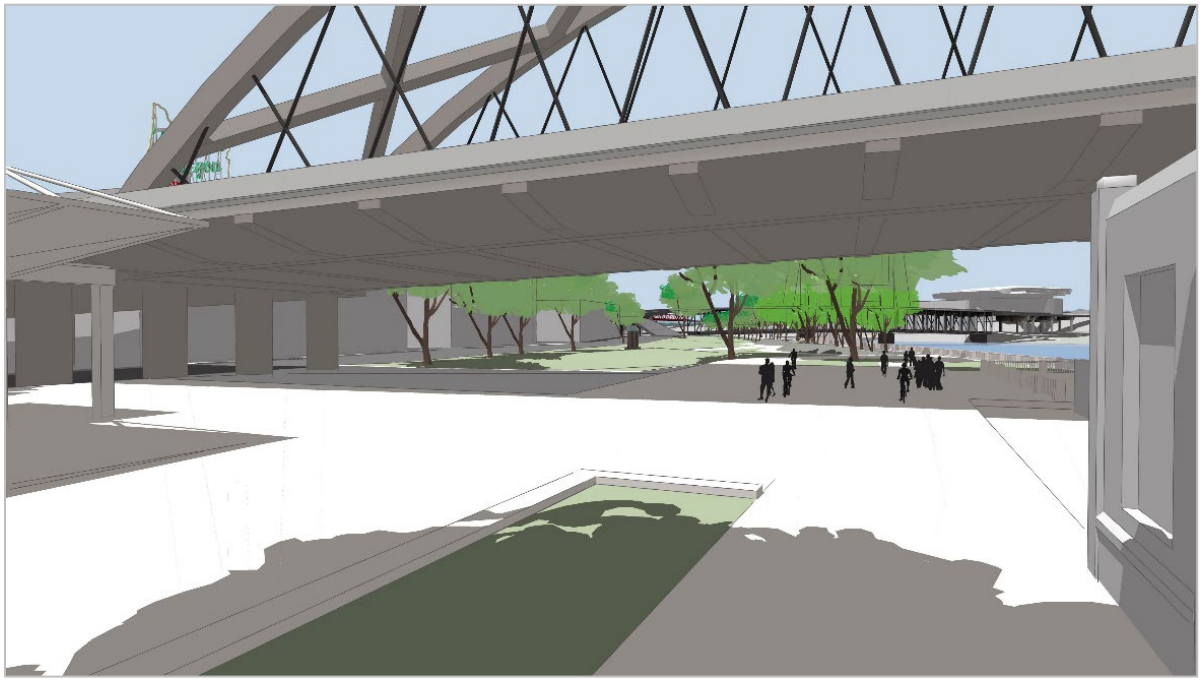


Figure 6. View from Ankeny Pump Station – Draft EIS Long-Span Cable-Stayed

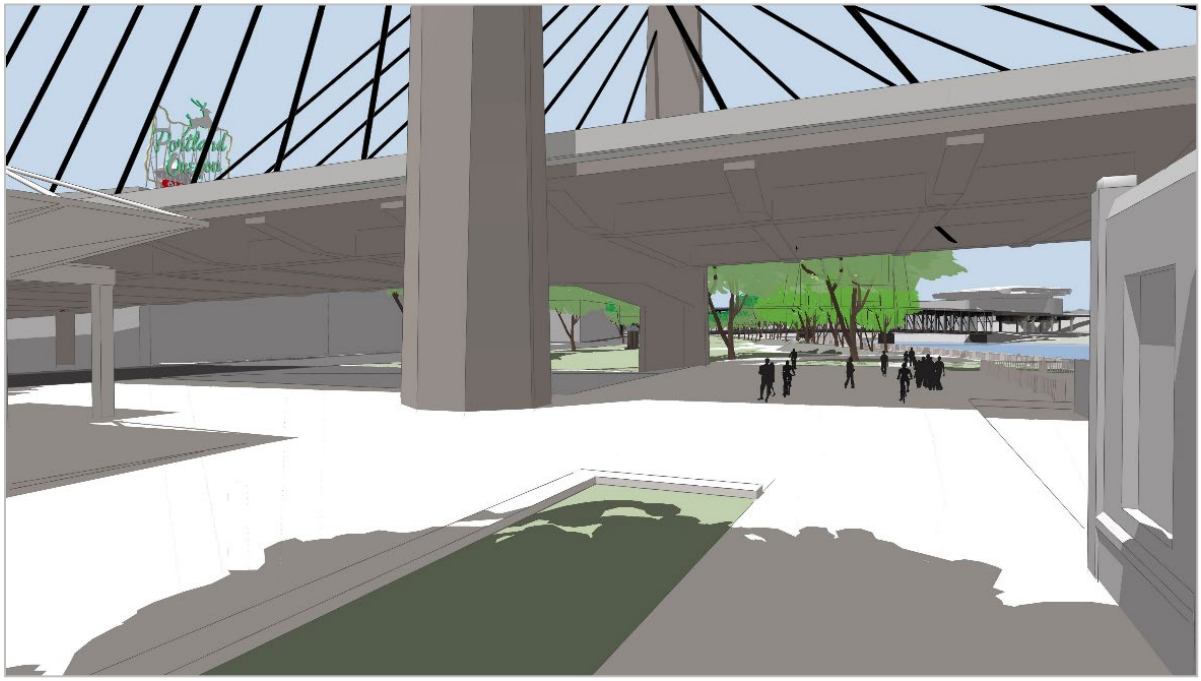


Figure 7. View from Ankeny Pump Station – Refined Long-Span Girder

Figure 8. ADA Access – Draft EIS Long-Span Alternative Ramp and Stair Access

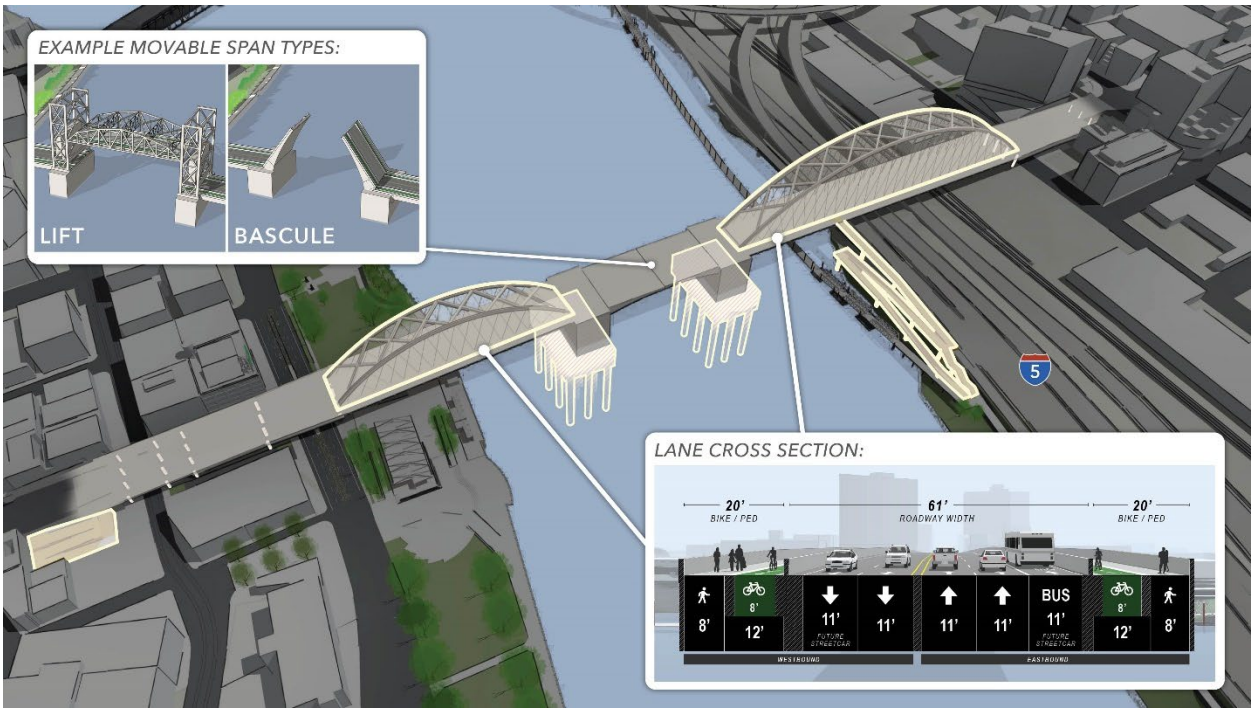


Figure 9. ADA Access – Refined Long-Span Alternative Elevator and Stair Access

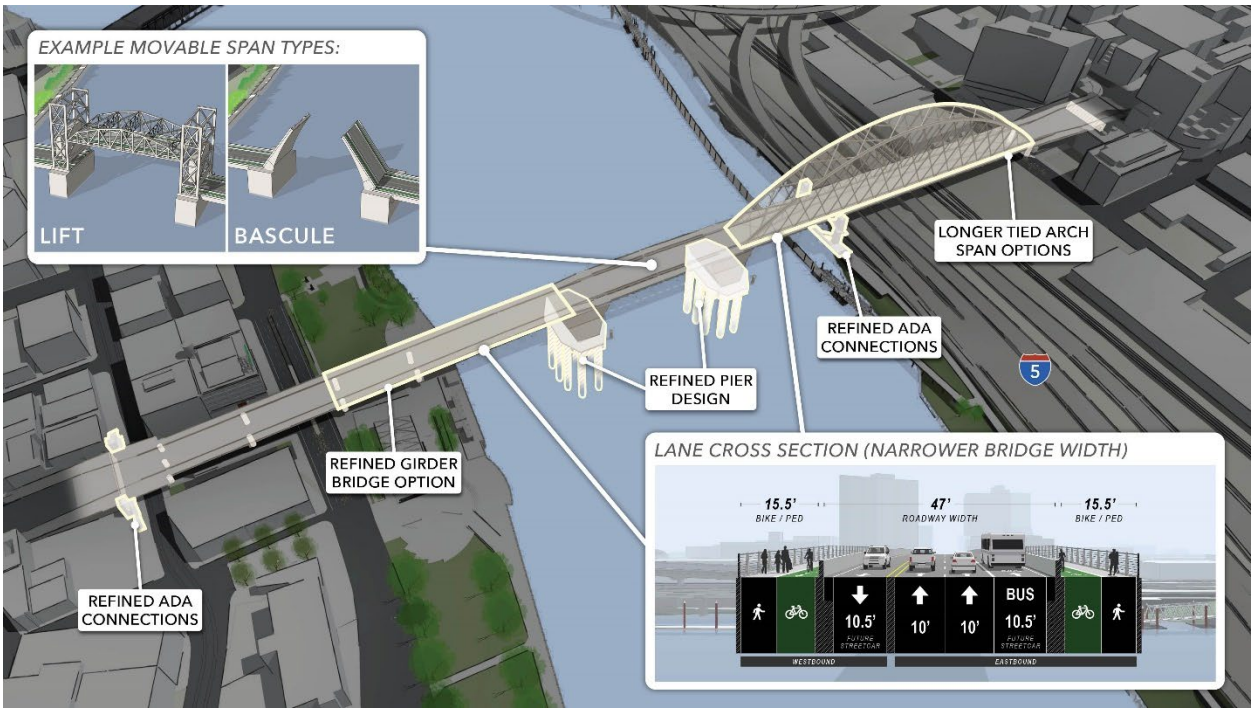
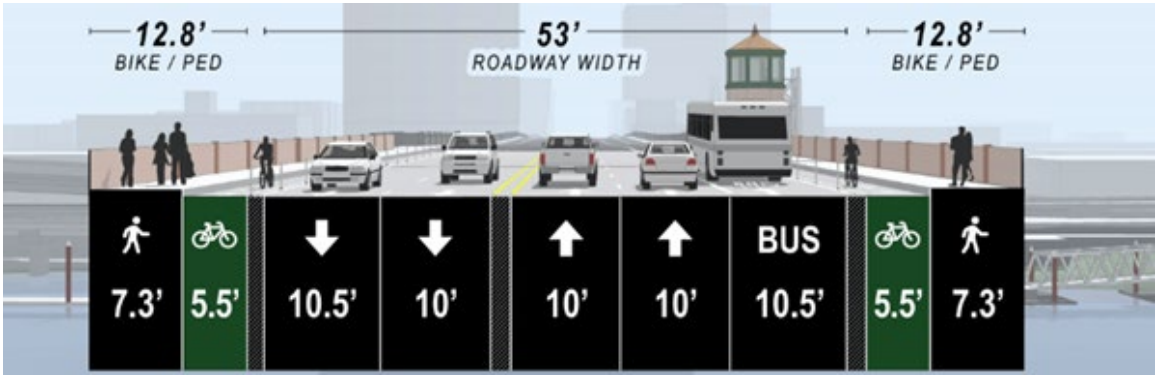
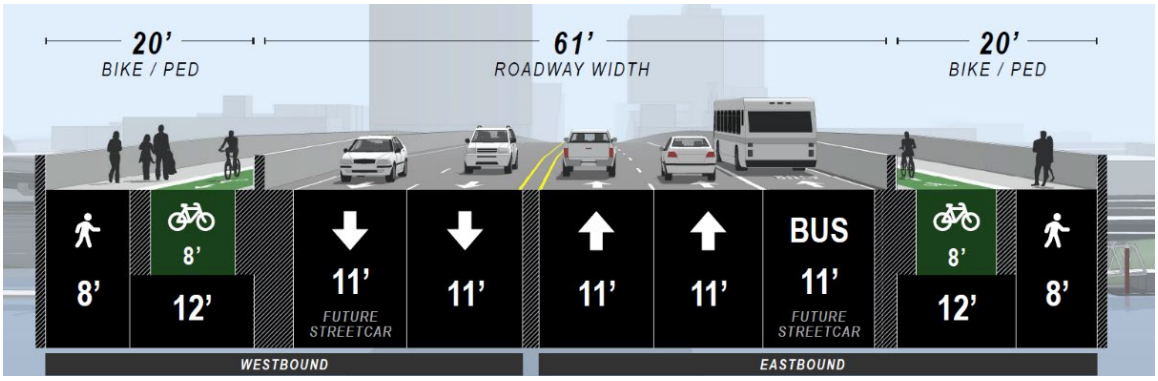


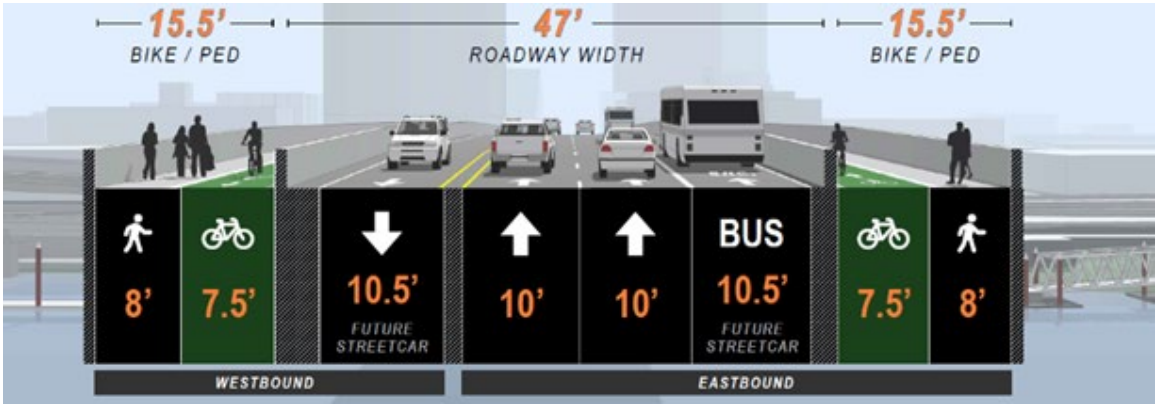
Figure 10. Bridge Width – Cross Section Over River



Existing Bridge Width

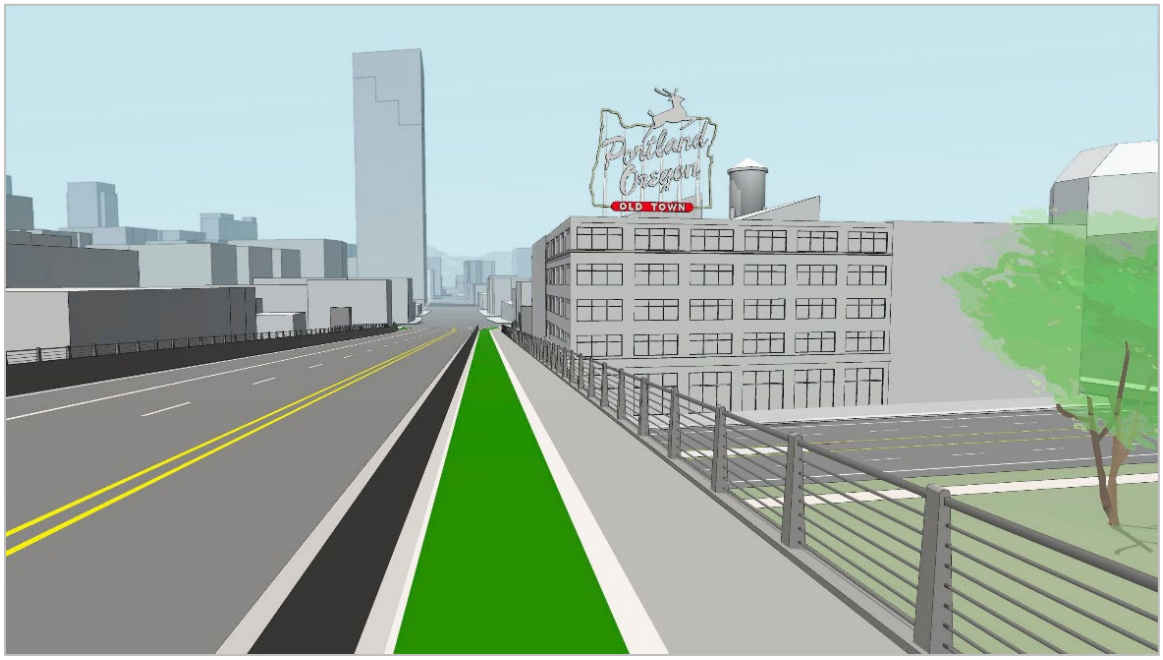


Draft EIS Long-Span Bridge Width



Refined Long-Span Bridge Width

Figure 11. Refined Long-Span Alternative East Sidewalk

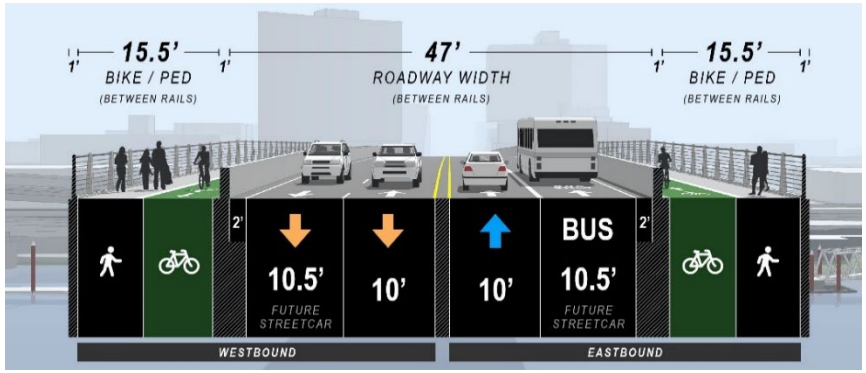


7.1.2 Community Facilities and Social Service Providers

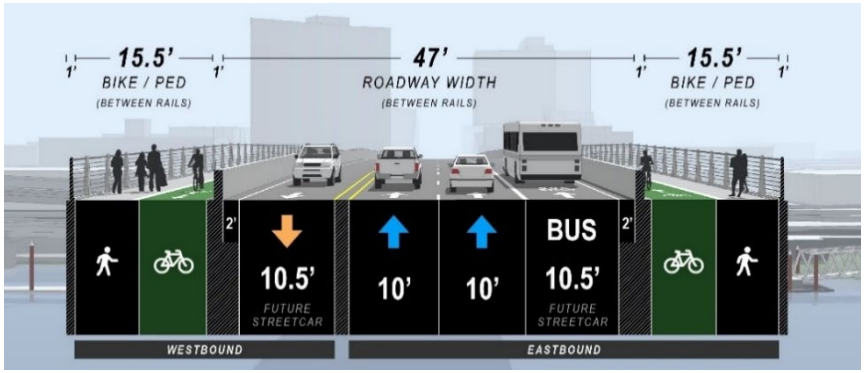
The Refined Long-span Alternative would have one less vehicle lane, accommodating four lanes rather than five as evaluated in the Draft EIS. The following summarizes bus travel times for the four lane options evaluated with the Refined Alternative.

- Westbound bus travel times for Lane Option 1 are 4.5 percent slower than for Lane Options 2 and 3, but 14 percent faster compared with Lane Option 4. Eastbound travel is 9 percent faster compared with Lane Options 2 and 3, and 35 percent faster compared with Option 4. In the westbound direction, travel time reliability performance is worse compared to Lane Options 2 and 3.
- Westbound bus travel times are the fastest under Lane Options 2 and 3, but eastbound travel times under Lane Options 2 and 3 are 9 percent slower than Lane Option 1. However, this option is 30 percent faster compared with Lane Option 4. Westbound reliability (during the PM peak hour) is similar to Lane Options 1 and 3. Eastbound reliability with this option would not see the queue spillback impacts that are projected to impact Lane Option 4.
- Lane Option 4 does not include a bus-only lane which could adversely impact eastbound bus riders (see Figure 12). Travel times for buses are the slowest under Option 4. In the eastbound direction, travel across the bridge is between 50 and 40 percent slower while in the westbound direction travel times are between 15 and 20 percent slower. Eastbound reliability would be impacted by auto queuing at the intersection with Martin Luther King, Jr., Boulevard which is not present with Lane Options 1, 2, and 3. This could impact eastbound bus riders needing to make connections or riders accessing services on either side of the bridge.

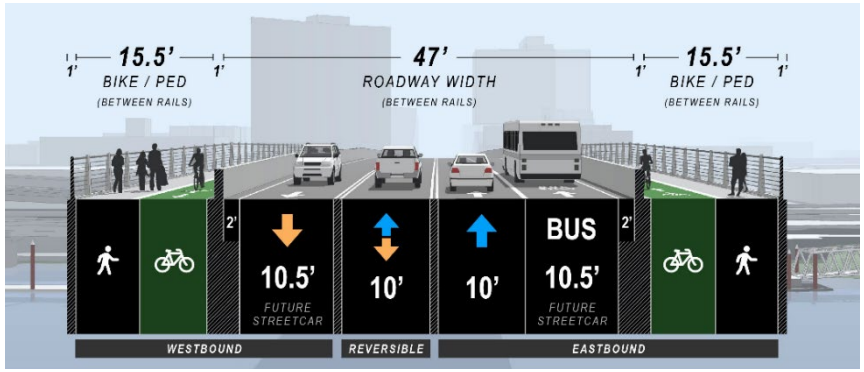
Figure 12. Refined Long-Span Lane Configuration Options



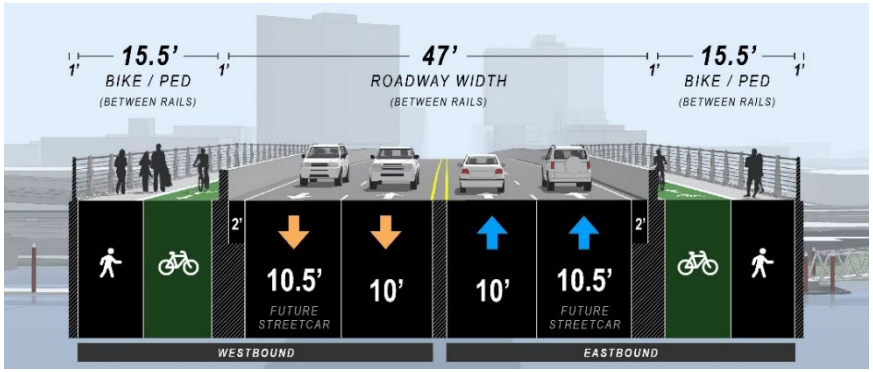
Option 1 – Two westbound lanes | One eastbound and one bus lane



Option 2 – One westbound lane | Two eastbound and one bus lane



Option 3 – Reversible lane



Option 4 – Two westbound lanes | Two eastbound lanes (bus queue jump)

Compared with the two full acquisitions required by the Draft EIS Long-span Alternative, the Refined Long-span Alternative would not require any full acquisitions but would acquire properties as permanent easements. As shown in Table 3, five community facility or social service provider properties would require easements (including the Portland Rescue Mission and Mercy Corps) under the Refined Long-span Alternative. Social service providers Portland Rescue Mission and Mercy Corps would not be displaced. Similar to the Draft EIS Long-span Alternative, the Saturday Market Administration and storage locations and the University of Oregon retail space would still be permanently displaced by the Refined Long-span Alternative's easements. It is not anticipated that the permanent relocation of these facilities would alter social interactions, cohesion, or the overall character of the neighborhood.

Table 3. Impacted Community Facility or Social Service Provider Properties – Long-Term

ID	Tax Lot ID	Property Name	Draft EIS Long-Span Alternative (business displacement)	Refined Long-Span Alternative (business displacement)
2	1N1E34DB-00900	Portland Rescue Mission	-	Easement
3	1N1E34DB-01500	Portland Saturday Market Storage (City of Portland)	Easement* (1)	Easement*(1)
4	1N1E34DB-01400	University of Oregon Classroom (City of Portland)	Full**(1)	Easement**(1)
5	1N1E34DC-00800	Saturday Market Administration Offices (Skidmore Fountain Plaza, LLC)	Full*(1)	Easement*(1)
11	1N1E34DC-90000	Mercy Corps	-	Easement

TCE = Temporary construction easement | TCE Access = Temporary construction easement for access closures only

*Portland Saturday Market would be permanently displaced from its administration offices and temporarily displaced from the storage and market space under the bridge.

**The University of Oregon uses this space and this is identified as a displacement of personal property.

Construction impacts and closure durations for community facilities under the Draft EIS Long-span Alternative are the same as under the Refined Long-span Alternative. Travel-time delays for automobiles and transit during construction under the Refined Long-span Alternative are anticipated to be similar to the Draft EIS Long-span Alternative.

Compared with the Draft EIS Long-span Alternative, the Refined Long-span Alternative would have a smaller construction area footprint south of the west end of the bridge within Waterfront Park. The smaller construction area would make more park space available to users during construction (refer to temporary construction impact figures in the *EQRB Description of Alternatives* [Multnomah County 2021a]).

Portland Rescue Mission and Mercy Corps would require temporary construction easements under the Refined Long-span Alternative. Unlike the Draft EIS Long-span Alternative, the Refined Long-span Alternative does not require a temporary access easement for the Portland Rescue Mission, and its accesses would remain open (see Table 4 for community facility or social service provider properties).

Table 4. Impacted Community Facility or Social Service Provider Properties – Temporary

ID	Tax Lot ID	Property Name	Draft EIS Long-Span Alternative	Refined Long-Span Alternative
1	1N1E34CA-09200	Central City Concern (Shoreline Building)	TCE Access	-
2	1N1E34DB-0900	Portland Rescue Mission	TCE Access	TCE
5	1N1E34DC-00800	Saturday Market Administration Offices (Skidmore Fountain Plaza, LLC)	-	TCE*
6	1N1E34CD-00300	Salvation Army	TCE Access	-
10	1N1E34DB-00600	University of Oregon (White Stag Building)	TCE Access	TCE Access
11	1N1E34DC-90000	Mercy Corps	TCE	TCE
12	1N1E34DB-01300	Japanese American Historical Plaza (City of Portland)	TCE	TCE
13	1N1E34DC-03600	Ankeny Plaza Structure (City of Portland)	TCE*	TCE*
B	N/A	Eastbank Esplanade (City of Portland)	TCE	-

TCE = Temporary construction easement | TCE Access = Temporary construction easement for access closures only

*Portland Saturday Market would be permanently displaced from its administration offices and temporarily displaced from the storage and market space under the bridge.

**The University of Oregon uses this space and this is identified as a displacement of personal property.

7.2 Post-Earthquake Impacts

The refined design modifications do not change anticipated impacts to social and neighborhood resources in a post-earthquake scenario.

8 Potential Mitigation

There is a mitigation addition for social and neighborhood resources to address potential long-term impacts to businesses and communities during construction which could affect social cohesion. The Project could provide a construction information web page. It could contain contact information so individuals and businesses could communicate questions and concerns regarding temporary access impacts, and they could look information on measures to maintain access. This would apply to all Build Alternatives.

9 Agency Coordination

No additional agency coordination was conducted for social and neighborhood resources for this supplemental memo.

10 Preparers

Name	Professional Affiliation	Education	Years of Experience
Jen Hughes	Parametrix	Environmental Planner	20
Sabrina Robinson	Parametrix	Planner	3

11 References

Multnomah County.

2021a. EQRB Description of Alternatives. Project Library | Multnomah County (multco.us)

2021b. EQRB Draft Environmental Impact Statement. Project Library | Multnomah County (multco.us).

2021c EQRB Social/Neighborhood Technical Report. Project Library | Multnomah County (multco.us).

2022. EQRB Supplemental Draft Environmental Impact Statement. Project Library | Multnomah County (multco.us).