Earthquake Ready Burnside Bridge: Combined Final Environmental Impact Statement/Record of Decision

Chapter 3

Supplemental Draft EIS Errata

For other questions including those related to the Americans with Disabilities Act and Civil Rights Title VI accommodations, call 503-988-5050. You can also call Oregon Relay Service 7-1-1 or email <u>burnsidebridge@multco.us</u>. For information about this project in other languages please call 503-988-5970.

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3 Supplemental Draft EIS Errata

Table 3-1 provides an overview of revisions of the Supplemental Draft EIS.¹ These edits reflect relatively minor updates and corrections that were identified based on agency and public comments. Each row of the table includes the section and page number of the Supplemental Draft EIS where the original content is located, the revised content with edits indicated, and notes to explain the revision made. The text that has been deleted is shown with red and strikethrough text, while text that has been added is shown with <u>blue</u> and <u>underlined text</u>. As needed, additional analysis to Supplemental Draft EIS content is included in Chapter 4, Supplementary Analysis and Discussion.

Please note that Table 3-1 has not been optimized for screen readers. If you need assistance, please call 503-988-5970.

¹ The Supplemental Draft EIS is available at the following location: <u>https://www.multco.us/earthquake-ready-burnside-bridge/project-library</u>

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SDEIS Location	Revised Content	Revision Notes
Section 2.6.2 (page 2-24)	 Lane Configuration – The Draft EIS Preferred Alternative studied one five-lane configuration for the bridge cross section. This SDEIS evaluates four different lane configurations for a four-lane bridge. As the road authority, the City of Portland will be asked to declare its preferred lane configuration <u>based on the four defined lane options</u>. 	Added text to clarify the lane configuration options.
Section 3.1.2 (page 3-4)	 With the modifications to signal timing at the W Burnside Street and NW/SW 2nd Avenue intersection and the four intersections along E Burnside Street and NE Martin Luther King, Jr. (MLK) Boulevard, the No-Build Alternative is projected to serve <u>96-98</u> percent of projected westbound traffic volume during the AM peak hour. 	Revised based on updated traffic analysis.
	 Lane Option 1 (Balanced) is projected to serve <u>96-94</u> percent of projected eastbound traffic volume during the PM peak hour, resulting in increased intersection delay and queuing for the intersections along W Burnside Street during the PM peak hour. Modeling indicates that the City's LOS standards would be met at all study intersections during the AM peak hour. All study intersections are anticipated to operate within City LOS standards with the exception of NW Couch Street at NW 2nd Avenue, NW 3rd Avenue, and NW 4th Avenue, which are forecast to operate at LOS FE or worse during the PM peak hour. Of the 26 study intersections, 16 (same as-three more than with the No-Build Alternative) would have queue lengths on one or more approaches that would exceed the existing storage length and cause traffic to back up into upstream intersections during the PM peak hour. Some intersection queue lengths would more than double when compared with the No-Build Alternative during the PM peak hour. 	
	 Lane Option 2 (Eastbound Focus) is anticipated to serve 100 percent of the projected eastbound traffic at all times. During the AM and PM peak hours, it is projected to serve <u>94-93</u> and 100 percent of projected westbound traffic volume, respectively. Modeling indicates that the City's LOS standards would be met at all study intersections during the <u>AM and PM peak hours</u>-except at the intersection of 	

Table 3-1. Supplemental Draft EIS Errata

SDEIS Location	Revised Content	Revision Notes
Section 3.1.2 (page 3-4) (continued)	NW Couch Street and NW 3rd Avenue, similar to the No-Build Alternative. Of the 26 study intersections, 16-14 (the same asone more than with the No-Build Alternative) would have queue lengths on one or more approach(es) that would exceed the existing storage length and cause traffic to back up into upstream intersections during the PM peak hour. Most queue lengths would be similar to the No-Build Alternative.	
	Lane Option 3 (Reversible Lane), because of its unique reversible lane, <u>this option</u> would operate the same as Lane Option 1 (Balanced) during the AM peak hour and the same as Lane Option 2 (Eastbound Focus) during the PM peak hour. It is projected to serve 100 percent of projected eastbound vehicle demand in the AM and PM peak periods and 100 percent of projected westbound traffic during the PM peak. However, <u>the AM peak hour would only serve only</u> 94 percent of westbound traffic during the AM peak hour would be served. All study intersections are anticipated to operate within City LOS standards except NW Couch Street at NW 3rd Avenue, which is forecast to operate at LOS F during the PM peak hour, similar to the No Build Alternativeduring the AM and PM peak hours. Of the 26 study intersections, <u>16-14</u> (the sameone more than with as the No-Build Alternative) would have queue lengths on one or more approach(es) that would exceed the existing storage length and cause traffic to back up into upstream intersections during the PM peak hour. Most queue lengths would be similar to the No-Build Alternative.	
	Lane Option 4 (General-Purpose with Bus Priority) eliminates the eastbound bus- only lane and instead has two general-purpose lanes in each direction, as well as added bus priority access (i.e., queue bypass) in the eastbound direction. Similar to the No-Build Alternative, Lane Option 4 is projected to serve 986 percent of projected westbound traffic volume during the AM peak hour. All study intersections are anticipated to operate within City LOS standards with the exception of NW Couch Street at NW 3rd Avenue, which is forecast to operate at LOS E during the PM peak hour, during the AM and PM peak hours, similar to the No-Build Alternative. Of the 26 study intersections, 136 (same as with the No-Build Alternative) would have queue lengths on one or more approach(es) that would exceed the existing storage length and cause traffic to back up into upstream intersections during the PM peak hour. While Lane Option 4 would provide an	

SDEIS Location	Revised Content	Revision Notes
Section 3.1.2	eastbound bus-only queue jump lane, there is a concern that during the PM peak, buses would be caught in the eastbound general-purpose lanes along with all other	
(page 3-4)	traffic, thereby delaying their ability to access the bus-only queue jump lane. The	
(continued)	95th percentile queue length for the eastbound general-purpose through lanes is 2560 feet, meaning the bus-only queue jump lanes would need to be at least 2560 feet long for all buses to bypass the queuing. Additionally, downstream congestion from E Burnside Street/14th Avenue would likely impact operations along E Burnside Street, meaning the 2560 -foot-long queue could in fact be longer.	
Section 3.1.2 (page 3-5)	• The 50-foot and 47-foot cross sections both meet TriMet's minimum lane widths for bus facilities. <u>TriMet has agreed to</u> the 44-foot cross section has been agreed to by <u>TriMet and could meet its minimum standards for operating envelope when the transit lane and shy distance widths are considered together. However, the reduced width may impact transit operations by placing transit vehicles into a narrower operating envelope and may lead to increased incidents of mirror strikes and sideswipe, particularly in the transition zones at the ends of the bridges.could impact transit operations and would increase minor crashes and mirror strikes for transit vehicles.</u>	Revised to update information about the 44-foot cross section
Section 3.1.2	Lane Option 4 (General-Purpose with Bus Priority) is not supported by the	Revised to clarify the
(page 3-6)	referenced policies above because of the removal of the bus-only lane. Bus queue jumps are integrated at both ends of the bridge span in the eastbound direction, but the facilities would not have the same travel time and reliability performance as the existing bus-only lane other lane options.	lane option.
Section 3.1.2	The width available for people walking and biking on the mid-span cross section	Added information
(page 3-6)	would be narrower under all the lane options compared to the Draft EIS Long-span Alternative. <u>The space for people walking and biking may not meet PBOT</u> <u>standards for facility widths, but it would still provide greater width compared to the</u> <u>existing space provided for active transportation</u> . The space reserved for active modes in the Draft EIS Long-span Alternative totaled 40 feet. Under the four lane options, this space would be to 28, 31, or 34 feet; a reduction in width of 30, 23, or 15 percent, respectively; this would still be at least 2 to 8 feet wider than the bicycling and walking facilities on the existing bridge.	about facility width standards.

SDEIS Location	SDEIS Location Revised Content	
Section 3.1.2	Because the cost and environmental impacts (flooding, aquatic habitat loss, vegetation	Deleted text regarding
(page 3-7)	loss, parkland footprint and visual intrusion) of the ramp options would be substantially greater than with any of the other connection options, and because some ADA advocates have expressed concern that long ramps would be a barrier to many people in wheelchairs or with other mobility requirements, the Refined Long-span Alternative studied in this SDEIS evaluates a refined elevators/stairs option for direct Vera Katz Eastbank Esplanade access. At the same time, bicycle advocates have expressed a preference for the convenience and reliability of ramps over elevators, and some ADA advocates have expressed concern about the safety, reliability, and sanitary nature of public elevators. In addition, the City of Portland has expressed interest in attempting to secure the funding, potentially with other partners, that would be needed to replace its existing stairs with ramps. Such ramps, or any other pedestrian, bicycle, or ADA connection to the Esplanade, could be implemented as an independent project (with an independent purpose) that may or may not occur simultaneously with the EQRB Project; therefore, it is possible that the EQRB Project would either not provide any direct connection to the Esplanade or could connect the City's existing staircase to the new bridge. The staircase was originally installed by the City under a revocable permit from the County.	the long ramps.

SDEIS Location	Revised Content	Revision Notes
Section 3.1.2	 The Draft EIS Long-span Alternative would is forecast to have more crashes than 	Revised to indicate
(page 3-8)	the No-Build Alternative because of the narrower average offset distance to the roadside barrier and the fixed object from the general-purpose lanes.	forecast information.
	• Under each bridge width scenario (i.e., 50-foot, 47-foot, and 44-foot), Lane Option 4 (General-Purpose with Bus Priority) would is forecast to have the highest number of crashes because of the narrow average offset distance between the general-purpose lane and the roadside barrier compared to other lane options.	
	 Under each bridge width scenario (i.e., 50-foot, 47-foot, and 44-foot), there are no substantial differences in crash rates and number of crashes are forecast between Lane Option 1 (Balanced), Lane Option 2 (Eastbound Focus), and Lane Option 3 (Reversible Lane). 	
	• There is no substantial difference in intersection geometry between the three bridge widths. For Lane Option 1 (Balanced), Lane Option 2 (Eastbound Focus), Lane Option 3 (Reversible Lane) and Lane Option 4 (General-Purpose with Bus Priority), the predicted crashes at the intersections are <u>estimated to be</u> the same for different bridge widths.	
	 The study area (intersections plus bridge) is forecast to have the lowest number of crashes under the 50-foot bridge width scenario and any lane option scenario. 	
	• Under the 47-foot bridge width scenario, Lane Options 1, 2, 3, and 4 for the study area (intersections plus bridge) would are forecast to have less than one additional fatal and injury crash and approximately one more property damage only crash compared with the 50-foot cross section.	

SDEIS Location	EIS Location Revised Content	
Section 3.1.2	The proposed bridge includes a barrier separating the roadway and the adjacent	Revised to clarify crash
(page 3-9)	pedestrian and bicycle facility. This barrier would prevent motor-vehicle/pedestrian and motor vehicle/bicycle crashes <u>from occurring</u> . Because of this, the mid-span assessment focused on motor vehicle crashes within the barrier; and pedestrian and bicycle crashes predicted using the American Association of State Highway and Transportation Officials Highway Safety Manual method are not included in the following analysis. A qualitative discussion on pedestrian and bicyclist safety is presented in Section 7.1.3 of the <i>EQRB Transportation Supplemental Memorandum</i> (Multnomah County 2022l) document. However, the barrier is a fixed object for motorists and would increase the number of motor vehicle crashes on the roadway compared to the existing tubular markers that separate vehicle traffic from bicycle users. More vehicle crashes are likely to occur where the average offset distance to the roadside barrier is narrower, resulting in Lane Option 4 (General-Purpose with Bus Priority) predicted to have the highest crash rate with the roadside barrier.	analyses.
Section 3.1.2	Transit	Revised statement
(page 3-11)	 Westbound AM and PM peak transit travel times would likely improve. 	about transit reliability.
	 Eastbound AM/PM peak transit travel times would likely be the same. 	
	Transit ridership would likely be the same.	
	 Transit reliability might improve slightly in the westbound direction.would be unchanged in both the eastbound and westbound directions. 	

SDEIS Location			Revised Conte	nt		Revision Notes
Section 3.1.2	Table 3.1-4. P	roposed Mitigation Me	asures			Added text to indicate
(page 3-12)	Mode	Lane Option 1 (Balanced)	Lane Option 2 (Eastbound Focused)	Lane Option 3 (Reversible Lane)	Lane Option 4 (General-Purpose with Bus Priority)	fixed object crashes.
	Traffic	No proposed mitigation	Same as for Lane Option 1.	Same as for Lane Option 1.	Same as for Lane Option 1.	
	Freight	No proposed mitigation	Same as for Lane Option 1.	Same as for Lane Option 1.	Same as for Lane Option 1.	
	Transit	 Relocate the existing WB bus stop and dwell space off the bridge deck or provide additional width on the bridge deck to accommodate the stop and dwell space. 	 WB Bus Queue Jump on NE Couch Street at MLK Boulevard and Grand Avenue. Relocate the existing WB bus stop and dwell space off the bridge deck or provide additional width on the bridge deck to accommodate the stop and dwell space. 	 WB bus queue jump on NE Couch Street at MLK Boulevard and Grand Avenue. Relocate the existing WB bus stop and dwell space off the bridge deck or provide additional width on the bridge deck to accommodate the stop and dwell space. 	 Extend the EB bus queue Jump at NE MLK Boulevard westward to avoid conflict with queueing through traffic. Relocate the existing WB bus stop and dwell space off the bridge deck or provide additional width on the bridge deck to accommodate the stop and dwell space. 	
	Active Transportation	Ensure that there are mode-specific pavement markings on both the sidewalk and separated bike lanes to reinforce which space is for each mode and mitigate the narrower space for active transportation.	Same as for Lane Option 1.	Same as for Lane Option 1.	Same as for Lane Option 1.	
	Safety	The fixed object fatal and injury crashes could be reduced by adding additional shoulder width to both directions of travel. See below for specific shoulder widths for each of the lane options and bridge widths.	Same as for Lane Option 1.	Same as for Lane Option 1.	The <u>fixed object</u> fatal and injury crashes could be reduced by increasing shoulder width to a total of 6 feet in both directions of travel for all three bridge widths.	

SDEIS Location	Revised Content	Revision Notes	
Section 3.10.2	The Refined Long-span short-term impacts would have the same duration as the Draft	Added text to clarify the	
(page 3-64)	EIS Long-span Alternative, but it would reduce the area of Waterfront Park that would be closed during construction. In contrast to the Draft EIS Long-span, the Refined Long-span Alternative would avoid closing the Ankeny Plaza Structure <u>(also known as</u> <u>the Waterfront Park Pavilion)</u> or any other portion of the park south of the plaza (see Figure 2.4-23 in Chapter 2 of this SDEIS).	structure being referred to.	
Section 3.10.2	Compared with the Draft EIS Long-span, the Refined Long-span would have a	Added text to clarify	
(page 3-65)	narrower deck width by 27 to 28 feet, reducing shading and the feeling of bulk over the Esplanade. Currently, there is a City-owned staircase connecting the Esplanade to the south side of the bridge 50 feet above it. This staircase could be reconnected to the new bridge, or it could be replaced with an upgraded connection. Any upgrades to the existing stairway connection could be implemented as a separate City-sponsored project, as discussed in Chapter 2 of this SDEIS. The Draft EIS studied options for upgrading this connection with either stairs and elevators or ramps and stairs (see Figures 2.4-21 and 2.4-22 in Chapter 2 of this SDEIS). The Refined Long-span Alternative further evaluated stairs and an elevator on the north and south sides of the bridge. Compared to the long ramps evaluated in the Draft EIS, elevators and stairs or reconnecting the existing stairs would have less disturbance to the upland portion of the Esplanade and preserve up to 30 trees, and the elevator option would potentially provide more convenient ADA access than the long ramps. However, for bicyclists, the elevators pose security concerns and require more maintenance. The ramps evaluated in the Draft EIS would require an additional 2 to 3 years of construction time closure of the Esplanade.	stair and elevator options.	

SDEIS Location	S Location Revised Content	
Section 3.11.2 (page 3-73)	White Stag Block The girder approach span proposed with the Revised Long-span Alternative would eliminate the attachment of the buildings in the White Stag Block to the bridge and would create an opening between the approach span and the adjacent buildings (the Draft EIS Long-span would as well). Separating the bridge approach from the building would be conducted according to the Secretary of the Interior's Standards for the Treatment of Historic Properties and would address the City Historic Review process and the Skidmore/Old Town Design Guidelines including minimizing material loss and visual changes to retain historic character. Creating this separation would enhance the ability of the White Stag Block to survive a major earthquake (the White Stag Block has been seismically retrofitted). It would also provide greater public visibility of the ground- level façade of the Skidmore Block, which has been obscured under the existing bridge approach span since 1926.	Added text about the City Historic Review process and the Skidmore/Old Town Design Guidelines.
Section 3.11.2 (page 3-73)	Bates Building Both the Draft EIS Long-span and the Refined Long-span would have similar effects. A new sidewalk would replace the existing sidewalk. Removal of the existing sidewalk and construction of a new sidewalk would be conducted according to the Secretary of the Interior's Standards for the Treatment of Historic Properties and would address the <u>City Historic Review process and the Skidmore/Old Town Design Guidelines</u> including minimizing material loss and visual changes to retain historic character. Any repairs to the façade may be subject to Portland Historic Resource review. There is no evidence the Bates Building has been seismically retrofitted.	Added text about the City Historic Review process and the Skidmore/Old Town Design Guidelines.

SDEIS Location	ion Revised Content	
Section 3.11.2	Burnside Hotel	Added text about the
(page 3-74)	Both the Draft EIS Long-span and the Refined Long-span would have similar effects as for the Bates Building. The Burnside Hotel is situated where the current approach span reaches street level, which would also be true of the Refined Long-span Alternative girder span. A new sidewalk would replace the existing sidewalk. Removal of the existing sidewalk and construction of a new sidewalk would be conducted according to the Secretary of the Interior's Standards for the Treatment of Historic Properties and would address the City Historic Review process and the Skidmore/Old Town Design Guidelines including minimizing material loss and visual changes to retain historic character. There is no evidence the Burnside Hotel has been seismically retrofitted.	City Historic Review process and the Skidmore/Old Town Design Guidelines.
Section 3.11.2	Salvation Army Building	Added text about the
(page 3-74)	Both the Draft EIS Long-span and the Refined Long-span would have similar effects as for the Bates Building and the Burnside Hotel. A new sidewalk would replace the existing sidewalk. Removal of the existing sidewalk and construction of a new sidewalk would be conducted according to the Secretary of the Interior's Standards for the Treatment of Historic Properties and would address the City Historic Review process and the Skidmore/Old Town Design Guidelines including minimizing material loss and visual changes to retain historic character. There is no evidence the Salvation Army Building has been seismically retrofitted.	City Historic Review process and the Skidmore/Old Town Design Guidelines.

SDEIS Location	Revised Content	Revision Notes
Section 3.11.2	Portland Harbor Wall	Added information about the original
(page 3-75)	The Harbor Wall was constructed around the pre-existing Burnside Bridge Pier 1. The Refined Long-span Alternative includes removing Pier 1 and constructing a paved surface to the edge of river across the gap left by removal of the pier. This would also involve removal of the Harbor Wall railing around Pier 1, which is one of two remaining segments of the 1930s concrete railing. The other remaining segment is along the river face of the Ankeny Pumping Station and would not be removed. <u>These represent only 3 to 4 percent of the original railing.</u> The Draft EIS Long-span Alternative would also remove Pier 1 but would not cover the gap left by removal of the pier.	Harbor Wall railing.
	The proposed removal of Pier 1 and the associated Harbor Wall railing would be conducted according to the Secretary of the Interior's Standards for the Treatment of Historic Properties, including matching the design, color, texture, and materials in the construction of the new paved surface and minimizing material loss and visual changes to retain historic character. The proposed removal of Pier 1 and the associated Harbor Wall railing would affect approximately 220150 linear feet of the Harbor Wall—about 50 percent of the remaining 1930s railing. This represents only 3 percent of the total length of the Harbor Wall. The planned pavement to replace the Pier 1 location would establish a more complete linear alignment for the Harbor Wall with the top of the riverbank.	
	Because the proposed changes would follow the Secretary of the Interior's Standards for the Treatment of Historic Properties, there would be no impacts to the historic character of the Portland Harbor Wall. A no adverse effects finding is therefore recommended for the Refined Alternative for the Portland Harbor Wall. <u>The Project</u> <u>Programmatic Agreement states that the County "will explore salvage and reuse of the</u> <u>existing concrete panel Harbor Wall railings around Pier 1," (the railings are owned by</u>	

SDEIS Location	DEIS Location Revised Content				
Section 3.11.2	These changes would compromise the feeling and setting of the Frigidaire Building but	Added information			
(page 3-75)	not other elements of the historic resource. <u>These changes may also be subject need</u> to address to the City Historic Review process. It is therefore recommended that the Refined Long-span Alternative would not have an adverse effect with the tied-arch bridge nor with the cable-stayed bridge as long as cables are located between the sidewalk and the bridge deck to avoid obscuring the building frontage from the sidewalk.	about the City Historic Review process.			
Section 3.16.2		Revised to change the			
(page 3-97)	<complex-block><complex-block><complex-block></complex-block></complex-block></complex-block>	number of trees show			











SDEIS Location	Revised Content								Revision Notes Revised the numbers of trees that would be		
Section 3.16.2	VEGETATION										
(page 3-103)											
(page 5-100)	Sidewalk improvements with the Refined Long-span Alternative would increase the									affected.	
	construction area on the west side. There is little vegetation in this area, although										
	eightseven trees located on W Burnside Street would need to be removed with the										
	Refined Long-span <u>Alternative</u> that would remain with the Draft EIS Long-span										
	Alternative. On the other hand, the narrower bridge would decrease the construction										
		area in Waterfront Park on the south side of the bridge, resulting in less vegetation									
		removal. In addition, refined construction assumptions with the Refined Long-span									
	<u>Alternative</u> would avoid removing <u>nine</u> 10 Japanese flowering cherry trees that would have been removed by the Draft EIS Long-span Alternative. On the east side, the anticipated area of construction would be reduced south of the bridge compared to										
										what would occur with the pedestrian ramp evaluated for the Draft EIS Long-span	
	Alternative, resulting in 23 trees that would remain without construction of the										
	pedestrian ramp. The total amount of vegetation that would be removed with the										
	Refined Long-span Alternative is less than with the Draft EIS Long-span Alternative										
	(see Table 3.16-2).										
		(000 10000									
Section 3.16.2	Table 3.16-1. Approximate Temporary Construction Activities Causing Impacts to Vegetation, Wildlife, and Aquatic Species									Revised the number	
(page 3-104)	Build Alternative (movable span option)	Number of Piles below OHWM	Area of Piles below OHWM (sq ft)	Number of Piles in SWH	Area of Piles in SWH (sq ft)	Caisson/ Cofferdam Area (acres)	Loss of Vegetation/ Wildlife Habitat (acres)	Tree Removal (number of trees)	Duration of Construction (years)	Duration of Pile Driving (days)	of trees that would b affected.
	Draft EIS Long-Span (bascule lift)	730	2,300	103	330	1.5	1.3	<u>11</u> 87	4.5	135–145	
	Draft EIS Long-Span	650	2,050	103	330	1.5	1.3	<u>11</u> 87	4.5	135–145	
	(vertical lift) Refined Long-Span (bascule lift)	566	1,790	51	170	0.05	1.0	<u>100</u> 77	4.5	135–145	

SDEIS Location Section 3.16.2 (page 3-105)		Revised Content									
	Table 3.16-2. Estim Alternatives	Revised the numbers of trees that would be									
	Alternative	Temporary Construction Area (acres)	Loss of Vegetation/ Wildlife Habitat (acres)	Loss of Trees (quantity)	Number of Piles below OHWM	Pile Driving Duration (total days)	Years of Construction	affected.			
	No-Build	0	0	0	0	0	0				
	Draft EIS Long-Span	30.7	1.3	8 <u>11</u> 7*	650–730	135–145	4.5				
	Refined Long-Span	32.7	1.0	77100	566-677	135–145	4.5				

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