

## Appendix C

# Early Screening of River Crossing and Transit Components

The project team began the process of developing alternatives by identifying possible transportation components (i.e., transit technologies, and river crossing types and locations) that could be packaged into alternatives. Over 70 such components were identified in the 2002 I-5 Transportation and Trade Partnership Final Strategic Plan and through additional public and stakeholder outreach.

After identifying components, project staff evaluated their potential to address this project's purpose and need in order to narrow these options in preparation for packaging them into full alternatives. Only transit and river crossing components were screened. Other components, such as transportation demand management measures or highway improvements north and south of the river, could not be adequately evaluated at the time because their performance would critically depend on their integration with transit and river crossing improvements.

The initial screening effort in April 2006 evaluated 37 river crossing and transit components using a pass/fail test designed to eliminate ideas well outside the scope of this project and/or that clearly do not address this project's purpose and need. This test relied upon six pass/fail questions to determine which river crossing and transit components should advance for further consideration. These questions asked whether each component:

1. Increases vehicular capacity or decreases vehicular demand?
2. Improves transit performance within the bridge influence area?<sup>1</sup>
3. Improves freight mobility within the bridge influence area?
4. Improves safety and decreases vulnerability to incidents within the bridge influence area?
5. Improves bicycle and pedestrian mobility within the bridge influence area?
6. Reduces seismic risk of the I-5 Columbia River Crossing?

Components were eliminated from further consideration if they failed any of these six questions, as failure on any of these questions was deemed a fatal flaw for meeting this project's purpose and need. Transit components were only evaluated on the first, second, and fourth questions, as the other questions do not apply to the transit element of this project.

The following table summarizes the results of this screening process:

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<sup>1</sup> The bridge influence area is the I-5 corridor within the CRC project area, which spans from SR 500 in Vancouver, Washington to approximately Columbia Boulevard in Portland, Oregon.

<b>Early Screening Results</b>			Increase vehicular capacity or decrease vehicular demand?	Improve transit performance?	Improve freight mobility	Improve safety and decrease vulnerability to incidents?	Improve bicycle and pedestrian mobility?	Reduce seismic risk of the I-5 Columbia River Crossing?	Overall
F = Fail P = Pass U = Undetermined – components were not dropped based upon this result									
<b>Transit</b>	TR-1	Express Bus in general purpose lanes	P	P	N/A	U	N/A	N/A	P
	TR-2	Express Bus in managed lanes	P	P	N/A	U	N/A	N/A	P
	TR-3	Bus Rapid Transit (BRT)-Lite	P	P	N/A	U	N/A	N/A	P
	TR-4	Bus Rapid Transit (BRT)- Full	P	P	N/A	U	N/A	N/A	P
	TR-5	Light Rail Transit (LRT)	P	P	N/A	U	N/A	N/A	P
	TR-6	Streetcar	P	P	N/A	U	N/A	N/A	P
	TR-7	High Speed Rail	F	F	N/A	U	N/A	N/A	F
	TR-8	Ferry Service	F	F	N/A	U	N/A	N/A	F
	TR-9	Monorail System	P	F	N/A	U	N/A	N/A	F
	TR-10	Magnetic Levitation Railway	F	F	N/A	U	N/A	N/A	F
	TR-11	Commuter Rail	P	F	N/A	U	N/A	N/A	F
	TR-12	Heavy Rail	P	F	N/A	U	N/A	N/A	F
	TR-13	Personal Rapid Transit	F	F	N/A	U	N/A	N/A	F
	TR-14	People Mover/Automated Guideway Transit	P	F	N/A	U	N/A	N/A	F
<b>River Crossing</b>	RC-1	Replacement Bridge-Downstream/Low-level/Movable	P	P	P	P	P	P	P
	RC-2	Replacement Bridge-Upstream/Low-level/Movable	P	P	P	P	P	P	P
	RC-3	Replacement Bridge-Downstream/Mid-level	P	P	P	P	P	P	P
	RC-4	Replacement Bridge-Upstream/Mid-level	P	P	P	P	P	P	P
	RC-5	Replacement Bridge-Downstream/High-level	P	P	P	F	P	P	F
	RC-6	Replacement Bridge-Upstream/High-level	P	P	P	F	P	P	F
	RC-7	Supplemental Bridge-Downstream/Low-level/Movable	P	P	P	U	P	U	P
	RC-8	Supplemental Bridge-Upstream/Low-level/Movable	P	P	P	U	P	U	P
	RC-9	Supplemental Bridge-Downstream/Mid-level	P	P	P	U	P	U	P
	RC-10	Supplemental Bridge-Upstream/Mid-level	P	P	P	F	P	U	F
	RC-11	Supplemental Bridge-Downstream/High-level	P	P	P	F	P	U	F
	RC-12	Supplemental Bridge-Upstream/High-level	P	P	P	F	P	U	F
	RC-13	Tunnel to supplement I-5	P	P	P	P	P	U	P
	RC-14	New Corridor Crossing	P	F	P	F	F	F	F
	RC-15	New Corridor Crossing plus widen existing I-5 Bridges	P	F	P	F	F	F	F
	RC-16	New Western Highway (I-605)	F	F	F	F	F	F	F
	RC-17	New Eastern Columbia River Crossing	F	F	F	F	F	F	F
	RC-18	I-205 Improvements	F	F	F	F	F	F	F
	RC-19	Arterial Crossing to supplement I-5	F	P	F	F	P	F	F
	RC-20	Replacement Tunnel	F	F	F	P	F	P	F
	RC-21	33rd Avenue Crossing	F	F	F	F	F	F	F
	RC-22	Non-Freeway Multimodal Columbia River Crossing	F	P	F	F	P	F	F
	RC-23	Arterial Crossing with I-5 Improvements	P	P	P	P	P	P	P