## Cost Estimate – Results

**Willamette River Transit Bridge**

### Conceptual Design Estimate

<table>
<thead>
<tr>
<th></th>
<th>Cable Stayed 4 Pier</th>
<th>Cable Stayed 2 Pier</th>
<th>Wave Frame Girder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>700' Clear</strong></td>
<td><strong>760' Clear</strong></td>
<td><strong>600' Clear</strong></td>
<td></td>
</tr>
<tr>
<td>TriMet</td>
<td>TriMet</td>
<td>TriMet</td>
<td></td>
</tr>
<tr>
<td><strong>Construction Costs</strong></td>
<td>$61,200,000</td>
<td>$64,800,000</td>
<td>$102,100,000</td>
</tr>
<tr>
<td><strong>Design Build Contractor Engineering</strong></td>
<td>$8,230,000</td>
<td>$9,105,000</td>
<td>$13,820,000</td>
</tr>
<tr>
<td><strong>Contingencies</strong></td>
<td>$13,230,000</td>
<td>$17,455,000</td>
<td>$23,000,000</td>
</tr>
<tr>
<td><strong>Differential Costs (Certain)</strong></td>
<td>$0</td>
<td>$0</td>
<td>$5,870,000</td>
</tr>
<tr>
<td><strong>Grand Total (January 2009)</strong></td>
<td><strong>$82,660,000</strong></td>
<td><strong>$91,360,000</strong></td>
<td><strong>$144,790,000</strong></td>
</tr>
<tr>
<td><strong>Grand Total (YOE August 2013)</strong></td>
<td><strong>$101,920,000</strong></td>
<td><strong>$112,910,000</strong></td>
<td><strong>$175,920,000</strong></td>
</tr>
</tbody>
</table>

*January 2009 cost escalated to YOE values*
Cost Estimate - Results

Willamette River Transit Bridge

Wave
$176 M

CS 4 Pier
$102 M

CS 2 Pier
$113 M
WRBAC Recommendation:

Willamette River Transit Bridge

• Remove Wave Frame from further consideration
• Advance Cable Stayed bridge type into preliminary engineering
WRBAC Recommendation: Willamette River Transit Bridge

- Explore viability of CS-SAS hybrid during early PE
HNTB advancing conceptual design to verify feasibility
Exploration of Viability of CS-SAS

Willamette River Transit Bridge

Catenary Suspension Cable

HNTB

Rosales

Catenary Profile

Adjust size to use stay cable technology versus “spinning” in place
Eliminated those not needed for structural system
Exploration of Viability of CS-SAS

Willamette River Transit Bridge

Span Configuration

HNTB

Optimize span to move pier away from active river bank location
Optimize span to reduce length and weight of “drop-in” center span section to eliminate costly gravity – anchorage
Exploration of Viability of CS-SAS

Willamette River Transit Bridge

Anchorage System

Use typical deck-anchorage system
Exploration of Viability of CS-SAS

Willamette River Transit Bridge

Schedule

- Conceptual Design .............................................. this week
- Conceptual Risk and Cost Estimate. ......................... end of April
- Review and Evaluation. ........................................ early May
- CAC and other stakeholders. ................................. mid May
- WRBAC. .......................................................... late May
- Steering Committee. ........................................... mid June
Thank you