Interstate Bridge Replacement Program

Summary

QUANTITATIVE RISK ASSESSMENT



Program Description

The Interstate Bridge Replacement (IBR) program is a multimodal corridor investment program addressing congestion, limited mobility, and safety on I-5 between SR 500 in Vancouver, Washington, and Victory Boulevard in Portland, Oregon. Project elements include:

- New earthquake-resilient multimodal bridge.
- Light rail extension from Portland to Vancouver, and bus on shoulder and express bus connectivity.
- Modifications to seven closely spaced interchanges.
- Enhanced pedestrian and bicycle paths throughout the program area.
- Transportation demand management features.
- Addition of auxiliary lanes and safety shoulders.

Program Benefits

The program will result in the following benefits:

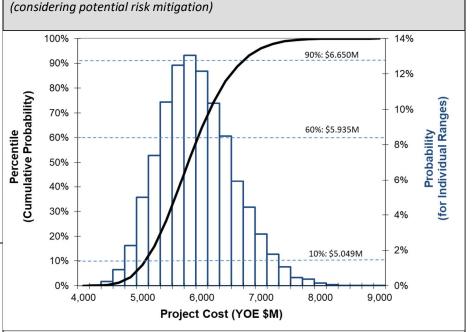
- Improves safety, congestion and travel reliability.
- Creates an earthquake-resilient corridor.
- Improves freight movement and connections.
- Expands travel choices, including alternatives to single-occupancy vehicles.
- Supports tens of thousands of jobs and generates nearly two times return on investment during construction.
- Supports climate goals of both states.

Key Assumptions

- Results are based on the Modified LPA as defined in the main body of the report.
- Program is to be delivered through a mix of traditional and alternative delivery methods.
- Potential for elective deferral or cancellation of the program was not included.
- A two-bridge stacked configuration is assumed.
- Risks to the implementation of tolling were not included.
- Cost escalation rates are based on WSDOT.
 CPDM/CPMS indices. Uncertainty in these forecasts was not included.
- Potential "Acts of God" are not explicitly considered in the analysis, although allowances for "minor" and unidentified risks are included.

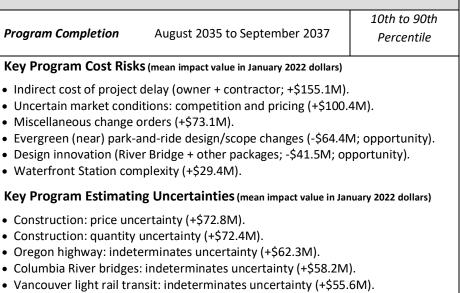
Program History (key dates)

- 2004: Columbia River Crossing (CRC) initiated.
- 2011: Record of Decision (ROD) issued.
- 2014: CRC was discontinued.
- 2019: CRC reinitiated as IBR program.



QRA Schedule Range (considering potential risk mitigation)

Quantitative Risk Assessment (QRA) Cost Range



• Vancouver highway: indeterminates uncertainty (+\$53.3M).

Key Program Schedule Risks (approximate mean impact to critical path)

- State funding delays (+4 months).
 Bridge substructure/foundation changes during construction (+3 months).
 - Post-ROD legal challenge (+2 months).
 - Inadvertent discoveries (+1 month).
 - Section 106 analysis (+1 month).

High

• Bid protest (+1 month).

Med

January 2023



Level of Project Design

Low