

Project Information Summary

Columbia River Crossing

July 25, 2011



Project Genesis and History

The need for improvement of the I-5 corridor in Portland-Vancouver was identified almost two decades ago. The first major effort to document the needs and evaluate options for improving the bi-state corridor occurred in 1999 with the Portland/Vancouver I-5 Trade Corridor Study that produced the *Freight Feasibility and Needs Assessment* in January 2000. This was followed by the Portland/Vancouver I-5 Transportation and Trade Partnership that produced its *Final Strategic Plan* in June 2002.

The process to develop, review alternatives and design the Columbia River Crossing project began in 2005, not counting the years of planning work. The public, stakeholders and partner agencies identified

six project area problems. Seventy different ideas for potential solutions were suggested and discussed by partner agencies, the 39-member CRC Task Force and the public.

Out of the 70 ideas, 12 preliminary alternatives were identified. Each alternative included several transportation components: bridge, highway, transit, freight, bicycle and pedestrian improvements, and strategies to reduce travel demand. The project team and others evaluated these preliminary alternatives to identify the strengths and weaknesses of each. Following stakeholder and public input, the project team recommended five alternatives for further analysis in the Draft EIS.

In 2008, after three months of public hearings, community comments and meetings, and local partner and agency review, the project team identified the project elements that best improve safety and mobility with the least impact on natural resources and local communities. Those elements include replacing the I-5 bridge, extending light rail to Vancouver, improving safety by rebuilding closely-spaced interchanges, and enhancing the bicycle and pedestrian path. The Task Force, Vancouver and Portland City Councils, C-Tran and Tri-Met, and RTC and Metro all supported this alternative.

Since 2008, the CRC project team has been guided by the Project Sponsors Council and has been working to refine the project and prepare the Final EIS. The project team has been working toward publication of the FEIS in the fall of 2011 and is advancing the engineering work toward a “30-percent” design.

Purpose and Need

The following is the CRC’s approved Purpose and Need statement:

Project Purpose

The purpose of the proposed action is to improve I-5 corridor mobility by addressing present and future travel demand and mobility needs in the Columbia River crossing Bridge Influence Area (BIA). The BIA extends from approximately Columbia Boulevard in the south to SR 500 in the north. Relative to the no-build alternative, the proposed action is intended to achieve the following objectives: a) improve travel safety and traffic operations on the I-5 crossing’s bridges and associated interchanges; b) improve connectivity, reliability, travel times and operations of public transportation modal alternatives in the BIA; c) improve highway freight mobility and address interstate travel and commerce needs in the BIA; and d) improve the I-5 river crossing’s structural integrity.

Project Need

The specific needs to be addressed by the proposed action include:

- **Growing Travel Demand and Congestion:** Existing travel demand exceeds capacity in the I-5 Columbia River crossing and associated interchanges. This corridor experiences heavy congestion and delay lasting 2 to 5 hours during both the morning and afternoon peak travel periods and when traffic accidents, vehicle breakdowns, or bridge-lifts occur. Due to excess travel demand and congestion in the I-5 bridge corridor, many trips take the longer, alternative I-205 route across the river. Spillover traffic from I-5 onto parallel arterials such as Martin Luther King, Jr. Boulevard and Interstate Avenue increases local congestion. The two crossings currently carry over 260,000 trips across the Columbia River daily. Daily traffic demand over the I-5 crossing is projected to increase by 40 percent during the next 20 years, with stop-and-go conditions increasing to at least 10 to 12 hours each day if no improvements are made.

- **Impaired freight movement:** I-5 is part of the National Truck Network, and the most important freight freeway on the West Coast linking international, national, and regional markets in Canada, Mexico, and the Pacific Rim with destinations throughout the western United States. In the center of the project area, I-5 intersects with the Columbia River's deep water shipping and barging as well as two river-level, transcontinental rail lines.

The I-5 crossing provides a direct and important highway connection to the Port of Vancouver and Port of Portland facilities located on the Columbia River as well as the majority of the area's freight consolidation facilities and distribution terminals. Freight volumes moved by truck to and from the area are projected to more than double over the next 25 years. Vehicle-hours of delay on truck routes in the Portland-Vancouver area are projected to increase by more than 90 percent over the next 20 years. Growing demand and congestion will result in increasing delay, costs, and uncertainty for all businesses that rely on this corridor for freight movement.

- **Limited public transportation operation, connectivity and reliability:** Due to limited public transportation options, a number of transportation markets are not well served. The key transit markets include trips between the Portland Central City and the City of Vancouver and Clark County, trips between North/Northeast Portland and the City of Vancouver and Clark County, and trips connecting the City of Vancouver and Clark County with the regional transit system in Oregon. Current congestion in the corridor adversely impacts public transportation service reliability and travel speed. Southbound bus travel times across the bridge are currently up to three times longer during parts of the AM peak compared to off peak. Travel times for public transit using general purpose lanes on I-5 in the bridge influence area are expected to increase substantially by 2030.
- **Safety and Vulnerability to Incidents:** The I-5 river crossing and its approach sections experience crash rates nearly 2.5 times higher than statewide averages for comparable facilities. Incident evaluations generally attribute these crashes to traffic congestion and weaving movements associated with closely spaced interchanges. Without breakdown lanes or shoulders, even minor traffic accidents or stalls cause severe delay or more serious accidents.
- **Substandard bicycle and pedestrian facilities:** The bike/pedestrian lanes on the I-5 Columbia River bridges are 6 to 8 feet wide, narrower than the 10-foot standard, and are located extremely close to traffic lanes, thus impacting safety for pedestrians and bicyclists. Direct pedestrian and bicycle connectivity are poor in the BIA.
- **Seismic vulnerability:** The existing I-5 bridges are located in a seismically active zone. They do not meet current seismic standards and are vulnerable to failure in an earthquake.

Project Mileposts

MP306.51 on I-5 in Oregon to MP 2.2 in Washington

Construction Requirements

The project is a five-mile corridor within the Portland-Vancouver metropolitan area and involves reconstruction of existing, closely-spaced interchanges, the construction of a new river crossing (on two

parallel bridges) across the Columbia River, and the extension of the existing light rail transit (LRT) line from its current terminus in Portland to Vancouver. The main span across the Columbia River will be downstream from the existing lift-span bridges, which will remain open to traffic during the construction phase, but will ultimately be removed.

The main span across the Columbia River is planned as a pair of parallel two-deck bridges. The upper decks will carry five lanes each (southbound on the west bridge; northbound on the east bridge). The lower deck of the southbound bridge will accommodate the LRT line. The lower deck of the northbound bridge will be utilized for bicyclists and pedestrians. The bridge type selected is a deck truss design. Clearance above the river is approximately 95 feet at mid-span.

In addition to the main span crossing, three additional bridges will be constructed over the North Portland Harbor, which separates Hayden Island from the south bank of the Columbia River. At least four separate structures will be built above I-5 to carry local streets or related facilities. Numerous other structures will be constructed in connection with the planned interchange reconstruction and ramps.

The project seeks to rebuild I-5 within a built urban area, but also encounters a river used for marine navigation, some environmentally sensitive areas and historic properties. The project also involves extensive construction in the downtown core of Vancouver to implement the LRT extension through the downtown to a new terminus near Clark College. The LRT system will include a new station on Hayden Island, four stations in Vancouver and three new multi-story parking garages. Some property acquisition will be required.

Key project milestones leading to construction and operation of the CRC project are:

2011

- Update cost estimates
- Refine financial plan
- Legislative review
- Final Environmental Impact Statement
- Federal Record of Decision

2012

- Property acquisition process begins
- Final design phase
- Legislative review

2013

- Begin construction

2018

- I-5 Bridge opens

Concept of Operations

The project is planned as a tolled facility with tolling used for the I-5 river crossing. Tolling will be accomplished using electronic systems. No manual toll collection is planned.

The tolling structure and rates have not been established. It is anticipated that the toll rate will vary by time of day and that trucks will pay more than autos.

Given that it is a bi-state project, both the Washington and Oregon Transportation Commissions will need to be engaged in the toll policy and rate-setting process.

Operations of the LRT system will be performed by TriMet and C-TRAN, the existing transit operators in Portland and Vancouver, respectively.

Status of Planning and Environmental Approvals

The DEIS was published in 2008. A Biological Opinion under the federal Endangered Species Act was issued for the project in January 2011. The publication of the FEIS is anticipated in 2011. The Record of Decision is also anticipated in 2011.

Status of Right of Way Acquisition

Right of way needs for the project, including specific identification of impacted parcels, have been or are nearly completed for most of the project area. Acquisition has not begun.

In Washington, the limited access hearing was held in July 2011.

For the transit component of the project, an updated draft of the Real Estate Acquisition Management Plan will be available in summer 2011.

Is the project included in a TIP or STIP?

The project is included in all applicable documents including WSDOT's 2011-2014 Statewide Transportation Improvement Program and Oregon DOT's 2010-2013 Statewide Transportation Improvement Program.

Planning and Engineering Studies Performed to Date

Draft Environmental Impact Statement

The Draft Environmental Impact Statement (EIS) was published in 2008. Supporting documents included technical reports on a wide range of topics.

- CRC Draft EIS (May 2008):
<http://www.columbiarivercrossing.org/Library/Type.aspx?CategoryID=26>
- Draft EIS Technical Reports (May 2008):
<http://www.columbiarivercrossing.org/Library/Type.aspx?CategoryID=27>

Biological Assessment

A Biological Assessment was conducted and a Biological Opinion was issued in January 2011.

- Endangered Species Act Section 7 Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Conservation Recommendations for the Columbia River Crossing (January 2011):

http://www.columbiarivercrossing.org/FileLibrary/Biological_Assessment_Opinion/NMFS_Biological_Opinion_011911.pdf

Tolling Study

A tolling study was conducted in 2009-10.

- Columbia River Crossing Tolling Study Committee Report to the Washington and Oregon Legislatures (January 2010):
http://www.columbiarivercrossing.org/FileLibrary/Tolling/CRC_TollingStudyCommitteeReport.pdf

Cost Estimates

WSDOT's Cost Estimate Validation Process (CEVP) has been used throughout project development.

- CEVP (May 2010):
http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/CEVP_Errata_082610.pdf

Bridge Technical Screening

CRC and partner agency staff conducted a technical screening of bridge types in 2008.

- Columbia River Bridge Technical Screening Study (December 2008):
http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/CRC_TechnicalScreeningStudy_123108.pdf

Population, Employment and Land Use modeling

Metro conducted updated runs of the regional MetroScope population, employment and land use model in 2010.

- Columbia River Crossing MetroScope Results Documentation (December 2010):
http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/CRC_MetroScope%20Results_120910.pdf

Expert reviews

Expert review panels have conducted reviews of several project elements, including traffic modeling, greenhouse gases, and bridge type.

- Panel Assessment of Interstate Bridges Seismic Vulnerabilities (December 2006):
<http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/PanelAssessmentofBridgesSeismicVulnerabilities.pdf>
- Travel Demand Model Review Panel Report: (November 2008)
http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/TravelDemandModelReview_PanelReport.pdf

- Greenhouse Gas Emissions Analysis Expert Review Panel Report (January 2009):
http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/GHG_PanelReport_010809.pdf
- Independent Review Panel Report (July 2010):
http://crrreview.columbiarivercrossing.org/documents/IRP_report.pdf
- Columbia River Crossing Bridge Review Panel Final Report (February 2011):
http://www.columbiarivercrossing.com/FileLibrary/GeneralProjectDocs/BRP_Report.pdf

Funding Context

As of June 30, 2011, \$152.79 million has been allocated to the CRC project from federal and state sources:

Joint WSDOT/ODOT federal= \$15.0M

ODOT federal = \$25.18M

ODOT state= \$37.09M

WSDOT federal = \$25.45M

WSDOT state = \$50.07M

Approximately \$130 million has been spent through June 30, 2011.

The general concept for construction funding described in the DEIS includes the following major elements:

Federal Funds

Discretionary highway funds	\$400 million
FTA New Starts transit grant	\$850 million

State Funds

Equity contribution (50% per state)	\$900 million
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Tolls

\$702 - 832 million

Issues regarding construction funding are a significant project constraint. Concerns have been raised about the toll revenue forecasts, especially in light of dips in the observed traffic volumes in the corridor during the 2006 to 2009 period. Funding for operations of the LRT system in Vancouver have not yet been finalized, but a vote for operations funding has been scheduled during 2012 by C-TRAN, the Vancouver area’s public transit operator. This step will be necessary to assure federal transit funding for construction.

Key Stakeholders

The project is a joint project of the Washington and Oregon Departments of Transportation. The Federal Highway Administration and Federal Transit Administration are federal co-leads for the project. Local partners consist of:

- City of Vancouver
- City of Portland
- TriMet (the transit operator in Portland)
- C-TRAN (the transit operator in Vancouver)
- Southwest Washington Regional Transportation Council (the metropolitan planning organization in Vancouver)
- Metro (the metropolitan planning organization in Portland)

Political context including public interest and the perceptions of key stakeholders

In connection with the selection of the locally preferred alternative in 2008, each of the local partners approved the LPA and identified issues or concerns that they wanted to be addressed as the project moved forward. During the summer of 2011, the local partners were briefed on these issues and have indicated satisfaction or satisfactory progress. All are poised to sign the FEIS prior to submittal.

There has been and continues to be considerable interest in the project with both supporters and opponents. Tolling, light rail and project costs are the major controversial topics. Both major newspapers in the region have expressed editorial support for the project. Numerous business groups are supporters.

Cost Estimates

The CEVP process was recently conducted for two scenarios: a phased construction alternative and the full-build alternative. Both are included in the FEIS. The project is focusing on the less expensive phased construction alternative.

Assuming phased construction (which does not include improvements to SR-500 or the Port of Portland flyover ramp), overall CRC project costs are now estimated to be between \$2.63 and \$3.49 billion, with a 60 percent probability that costs will be \$3.13 billion or less.

Under the full build scenario, which does include improvements to SR-500 and the Port of Portland flyover ramp, overall CRC project costs are estimated to be between \$2.82 and \$3.75 billion, with a 60percent probability that costs will be \$3.37 billion or less.

Self Supporting Revenue Forecasts or Information

A tolling study was conducted. Tolling study materials can be found at:
<http://www.columbiarivercrossing.org/Library/Type.aspx?CategoryID=32>

The Traffic Technical Report supporting the DEIS can be found at:
http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/Traffic_TechnicalReport.pdf

Columbia River Crossing Financial Plan Review:

<http://www.columbiarivercrossing.com/FileLibrary/GeneralProjectDocs/ORTreasurerCRCFinancingReview.pdf>

Preliminary Draft FEIS Financial Chapter, July 2011 version (attached)

Project map

Project area aerial map:

http://www.columbiarivercrossing.org/FileLibrary/ConceptMaps/ProjectAreaAerialMap_June2011.pdf