Responses to October 25 Interstate 5 Bi-state Legislative Meeting

Responses jointly provided by ODOT and WSDOT

- **Sen. Beyer: What are some of the bridge safety issues? (e.g. what happens if a truck hits the bridge?)**

  The Interstate Bridge is functionally obsolete, which means it does not meet today's needs or current bridge design criteria, leading to safety issues for travelers:

  - Bicycle and pedestrian paths are narrow and difficult to access
  - Closely spaced on-and off-ramps, limited sight distance due to bridge "hump", and short spaced merge distances, contribute to the frequency of crashes
  - Current bridge lanes are narrower than the Interstate highway standard width
  - There are no safety shoulders for crashes or broken down vehicles, causing increased delay and congestion when wrecks occur

  Higher crash rates are consistently seen in highway locations with outdated design, like those listed above.

  Although the Interstate Bridge is functionally obsolete, it is NOT structurally deficient. Structural deficiency often warrants restrictions (e.g. number of vehicles, weight of loads) which is not the case with the Interstate Bridge. However, it is a fracture-critical structure, meaning if certain trusses become damaged this could cause the bridge to fail. However, it does have high vehicle clearance for trucks, so this is unlikely. It is also seismically vulnerable, as it would collapse or be rendered unusable in a major earthquake

- **Sen. Wilson (WA): What level of seismic event would the current bridge withstand?**

  The Interstate Bridges consist of two twin steel structures carrying Interstate 5 over the Columbia River. The north bound structure opened to traffic in 1917; the south bound structure opened in 1958. Neither structure was built to withstand earthquakes, as seismic design guidelines were not developed when the bridges were designed and constructed.

  Reliable estimation of the seismic performance of the current structures would require detailed and costly design-level structural analyses. To date, neither ODOT nor WSDOT has completed such analyses. However, in 1994 ODOT performed an evaluation of the vulnerable elements of the lift spans. In that high-level report, ODOT found seismic deficiencies apparent in both structures:

  - All piers are on timber piles – in the event of a seismic event the piles would be significantly overloaded
  - Pier columns would be loaded beyond their capacity
  - The location where the piers and columns connect to the roadway deck would be overloaded, potentially resulting in the trusses sliding into the water during an event

- Various steel trusses are likely to exceed their capacities and potentially buckle

While not evaluated as part of the 1994 ODOT report, we also know:

- Most of the bridge spans are supported on poor soils and are prone to liquefaction
- Lift spans, vulnerable due to the height and weight of the counterweights, were not designed for the significant shaking associated with seismic events

When designing seismic retrofit improvements, a structure is evaluated against current seismic design criteria and designed to meet those standards and predicted energy created by the earthquake. However, these design and construction efforts do not determine the precise level of seismic event the bridge is able to withstand, such as a reading on the Richter scale. Based on all information currently available to ODOT and WSDOT, both agencies are confident neither structure would survive a major earthquake.

- **Rep. Fey (WA): What other projects can/should be considered in conjunction with I-5 Bridge Replacement? Are there other strategic investments that can/should be made to facilitate comprehensive corridor improvement?**

  Building on the direction and vision of Oregon's 2017 Transportation Funding Package (HB 2017), ODOT developed and has begun delivering a comprehensive approach to congestion management and mobility improvement across the Portland metro area. This comprehensive strategy includes:

  - Addressing bottlenecks on I-5, I-205, and other regional highways,
  - Consideration of pricing efforts on both interstates,
  - Enhanced transportation options, and
  - Improving overall system operations across the region.

  WSDOT has upcoming and ongoing projects to improve operations of existing roadways including:

  - Bus on Shoulder on southbound Interstate 5
  - Active Transportation Management technologies, including ramp meters, lane control, and advisory speed limits on southbound Interstate 5
  - Future installation of ramp meters on I-205
  - Partnership with the Regional Transportation Council (RTC) to complete a corridor operations study on I-205 to look at future solutions to reduce congestion

  When completed, these interconnected system-wide projects will amplify the Interstate Bridge Replacement's benefits. As system improvements are made in concert, the benefits of each individual investment will enable all system users to experience the impact of future investments.

  As additional work on the Interstate Bridge Program moves forward, we will analyze how the different alternatives will impact traffic throughout the region. Changes to traffic patterns resulting from different alternatives may require the Program to identify additional improvements to the regional transportation system.

- **Sen. Frederick: How does the BNSF rail bridge factor into an I-5 Bridge Project or overall corridor plan?**

The alternatives analyzed during the previous project included consideration of supplemental arterial bridges between Vancouver and north Portland. When previously evaluated, it was found that a supplemental arterial bridge would:

- Primarily serve local traffic between Vancouver and north Portland
- Longer trips within the region, or trips with origin or destination points outside the region, would not use a supplemental arterial bridge since it would involve diverting off of I-5 only to return to it after crossing the river
- The ports and nearby industrial areas that lie on either side of the Columbia move goods to other destinations across the nation and world via the interstate with relatively limited demand to move goods only from one side of the river to the other
- A port to port connection would not eliminate the need for a more effective Interstate 5 crossing for freight traffic
- Past analysis showed fewer than 1 in 4 travelers both enter and exit the Interstate near the bridge, as many of the trips are longer regional trips that end or begin outside the area
- There is relatively low demand for local travel options between Vancouver and north Portland
- Most trips across the bridge are not local making a supplemental arterial bridge unlikely to greatly reduce demand on the I-5 Bridge and thereby eliminate the need to replace it

The intent is to provide greater detail on this topic as part of a future bi-state legislative meeting presentation on alternatives analyzed during the previous project.

- **Sen. Bentz: On the I-5 corridor between Mexico and Canada is the Interstate Bridge the weakest link?**

  At number 29, I-5 at the Columbia River is the worst freight bottleneck on I-5 from Mexico to Canada that still requires significant funding, according to the 2019 rankings by the American Transportation Research Institute.

  While I-5 at the Rose Quarter does fall one place before the Interstate Bridge on the list of freight bottlenecks, a solution for that location has significant funding and design is in process.

  Three other freight bottlenecks in California rank higher on the list along other roadways, but none on I-5.

  The next freight bottleneck in the Pacific Northwest identified on the list is I-5 and I-90 in Seattle, at number 37.

- **Rep. Boshart Davis: Since the port lost container service, has heavy truck traffic over the Interstate Bridge changed?**
  As of 2016, the Port of Portland estimated the loss of Terminal 6 container service generated an extra 200 trucks on the road per day. About 138,000 vehicles currently cross the I-5 Bridge each weekday. While this is an overall small percentage of the trucks on the Interstate Bridge, the Interstate Bridge is a vital route for freight traffic through the Portland Vancouver metro area.

- **Rep. McLain: What steps are needed to complete this project?**

  The steps outlined at the October 25 meeting are the key initial steps the program office will need to work on to restart efforts to replace the Interstate Bridge:

  - Reengage key stakeholders and the public
  - Reevaluate purpose and need
  - Reevaluate scope, schedule, and budget
  - Reevaluate permits
  - Develop a conceptual finance plan

  As the project develops but before construction begins on a replacement bridge, ODOT and WSDOT will need to work with partners to complete the following long-term tasks:

  - Secure broad regional support for a design alternative
  - Complete the federal environmental review process (including the tasks listed above), and obtain federal approval to proceed to construction
  - Obtain other necessary state and federal permits
  - Finalize the finance plan
  - Secure adequate funding, including toll analysis and toll authorization
  - Complete right of way acquisition
  - Advertise for construction

  The intent is to provide greater detail on this topic as part of a future bi-state legislative meeting presentation on megaprojects development process. Both states will continue to update the legislative committee as this work continues over the future.

- **Sen. Bentz: Previous round of critiques of what had previously been done from Tom Warne, an international bridge expert. How do we avoid the outcome of the previous critique where a consultant came in and said "you did 31 things wrong". This needs to show up in this, we aren't going to go astray again, I need to see how we are improving on this.**

  Given the early stage in the current process, all recommendations will be considered as the project development plans are formed going forward.

  The report mentioned in the question summarizes the findings of the Independent Review Panel from the previous project, and came at a point when there was still much work remaining on the project. There was a variety of feedback that came out of this report, which typically fell into a few categories: 1. recommendations on different ways to approach the NEPA process; 2. increased monitoring of specific items; 3. accelerating some parts of the process; 4. design feedback or review of design decisions.

  Some items were specific to the previous design and process and may not be as relevant as we move forward.

  The report provided specific, concrete recommendations the project team is certain will be part of the project going forward:

- Considering phasing options
- Ongoing and robust public involvement
- Clearly differentiating environmental justice from general community impacts
- Using performance measures
- Project management and governance structure between the two states for project development, construction, and operations & maintenance will be determined through an agreement between both states

The intent is to provide greater detail on this topic as part of a future bi-state legislative meeting presentation on megaprojects development process.

- **Sen. Wilson (WA): We need a good understanding of the physical constraints currently in place and how we plan to ensure our design is future-ready, particularly around the bridge height. How do we know we're considering all options and ensuring our design is informed by all factors?**

  A potential bridge design, including height, and the roadway connections are constrained by many interconnected factors, including, but not limited to:

  - U.S. Coast Guard navigation channel and vertical clearance for river traffic
  - Federal Aviation Administration airspace for Portland International Airport and Pearson Field Airport
  - Maintaining local connections, including Vancouver City Center, SR 14, Mill Plain Blvd., Hayden Island and Marine Dr.
  - Meeting current highway safety standards such as lane width, sight distance, and not exceeding recommended roadway steepness of approaches and ramps
  - Proximity of protected lands, including Fort Vancouver National Historic Site, archeological sites and significant wetlands
  - Developed land including downtown Vancouver, neighborhoods, and commercial and industrial properties
  - Minimizing impacts to I-5 and the surrounding transportation network during construction

  Important in considering future construction options is to first avoid impacts to the surrounding project area as much as possible, then minimize unavoidable impacts, and finally, if needed, mitigate for impacts.

  During the legislative committee's Nov. 13 meeting, ODOT and WSDOT will discuss all relevant physical and legal constraints as it relates to this project.

- **Rep. McKeown: What is important and necessary (dates, substantive benchmarks, etc.) in context of the Federal Highway Administration (FHWA) repayment extension, granted until September 30, 2024?**

Federal policy requires states and local government to repay federal funds expended on projects that are not completed. Specifically, FHWA may require repayment of funds if a project does not proceed to right of way acquisition within 10 years of the initial project authorization; FHWA is allowed to offer extensions of this timeframe in limited circumstances. FHWA Order 5020.1A, para 6.e. states:

> *Time extensions should only be approved with a definite schedule, a commitment by the State DOT to follow the schedule, and documentation of steps that the State DOT will take to advance the project. The time extension request should include an evaluation of the time needed to advance the project to ROW acquisition or on-site construction, and should provide support for a reasonable time extension that reflects the State DOT's commitment to advance the project.*

The extension of the project's repayment deadline require transition to the right of way acquisition stage, staying in the preliminary engineering phase of the project is not sufficient proof of progress. The right of way stage requires conclusion of activities in the preliminary engineering stage and funding to make these purchases.

Further detailed target dates were developed by the Program to meet the above stages, and these dates are part of the FHWA repayment extension conditions:

- Spring 2020: begin National Environmental Policy Act (NEPA)-required environmental reevaluation
- Summer 2023: NEPA review completion and commencement of right of way stage
- Summer 2025: Right of way acquisition and project construction begins

The intent is to provide greater detail on this topic as part of a future bi-state legislative meeting presentation on megaprojects development process.

- **Sen. Cleveland (WA): In regards to the previous project development process, I'd be curious to know at what points in the process was there legislative involvement?**

  The previous project kept legislators informed at a high-level and responded to requests for meetings and information. Legislative engagement varied between the states in the previous process; key engagement points are summarized below. The intent is to provide greater detail on this topic as part of a future bi-state legislative meeting presentation on megaprojects development process.

  The I-5 bi-state legislative committee will be one important piece of ongoing active management of relationships with legislators. Proactive management of relationships with legislators statewide in both states will be integral to project success as we move forward.

  Washington:
  The points of legislative action in the State of Washington for the former project include the following:

  - In 2005 ESSB 6091 created the Transportation Partnership Account, allocating $50 million for project development

- Budget provisos directing work to be completed were included in agency budgets from 2009 through 2012. Work called for included:
  - Tolling and financial structures studies
  - Legislative oversight
  - Quarterly reporting to legislature
- In 2012, ESSB 6445 designated I-5 from SR 500 to Victory Blvd over the Columbia River as an eligible toll facility

Oregon:

The points of legislative action in the State of Oregon for the former project include the following:

- In 2011, the Oregon State Legislature created the Joint Committee on Legislative Oversight on Columbia River Crossing, which comprised members of both the Oregon State Senate and the Oregon House of Representatives.
- This committee held a number of hearings throughout the interim and during legislative sessions that included in-depth briefings on the Project.
- In advance of the 2013 session, the Oregon State Legislature created the Joint Committee on Interstate 5 Bridge Replacement Project.
- This committee similarly included members from both Oregon chambers, held numerous hearings on the Project, and ultimately passed HB 2800 providing project construction funding and accountability/oversight.

- **Sen. Beyer: How much of the previous work needs to be merely updated, versus needs to begin "from scratch" (specifically regarding the Environmental Impact Statement, but including other analyses and reviews as well)?**

  Future design and how much it varies from the previous project will influence how much of the previous information is reusable. However, a significant amount of work will be reusable as a starting point regardless of design, such as:

  - Detailed framework for bi-state processes and procedures
  - Archeological studies and historic property exploration
  - Identification of hazardous material locations
  - Many high-cost technical evaluations including:
    - Geotechnical work that identified underground conditions within the program area
    - Test pile project that designed and tested a bubble curtain that could mitigate the impacts of sound/energy on fish during in-water construction
    - Drilled shaft project that confirmed that deep foundations can be constructed in this location
- **Sen. Beyer: The schedule seems very aggressive. Most potential options are likely already there and have been looked at, but we may come up with more to look at.**

  The dates provided were generated based on agency understanding of this type of work in general and taking into account existing information and understanding from previous work on Interstate Bridge replacement. The states are committed to meeting these dates, though certainty of that will depend on the outcome of the process with regional partners.

In conveying these dates and the commitment of ODOT and WSDOT to meet them to FHWA, two key caveats were included to emphasize that these dates will be dependent on legislative funding and bi-state partner agreement.

Steps to reach these benchmarks would be included as part of a future bi-state legislative meeting presentation on megaprojects development process.

- **Rep. Fey (WA): What would be the timeframe for making decision on an alternative?**

  The process to arrive at an alternative comes with various targets that need to be reached before moving onto the next step in the process and arriving at a final design.

  - Looking at the timeline for the last project is not a good indication of how long each step of this new effort will take, because the current starting point comes with significantly more background information and pre-work than before.
  - ODOT and WSDOT will conduct a process with partner agencies, local stakeholders, and the public to arrive at an alternative with broad regional support. The timeline will depend on the success of all parties involved to work together in reaching agreement.

  The intent is to cover this topic in greater detail, including the steps required to reach construction, as part of a future bi-state legislative meeting presentation on megaprojects development process.

- **Sen. Cleveland (WA): Were the dates key to the FHWA extension?**

  Yes, federal policy requires the provision of schedule information when extensions are requested. FHWA Order 5020.1A, para 6.e. states:

  > *Time extensions should only be approved with a definite schedule, a commitment by the State DOT to follow the schedule, and documentation of steps that the State DOT will take to advance the project. The time extension request should include an evaluation of the time needed to advance the project to ROW acquisition or on-site construction, and should provide support for a reasonable time extension that reflects the State DOT's commitment to advance the project.*