



Interstate  
**BRIDGE**  
*Replacement Program*



# IBR Program Progress

December 12, 2022

[www.interstatebridge.org](http://www.interstatebridge.org)

# Meeting Topics

- ▶ Program Update
- ▶ IBR Cost Estimate and Financial Plan Process
- ▶ Next Steps

# Program Update

Greg Johnson, Program Administrator

Frank Green, Assistant Program Administrator

Ray Mabey, Assistant Program Administrator

# 2022 Year in Review

## ▶ Endorsement of the Modified LPA

- All eight program partners endorsed the Modified LPA
- ESG unanimously recommends to further study the Modified LPA in the federal environmental review process
- Bi-state Legislative Committee acknowledges to further study the Modified LPA in the federal environmental review process

## ▶ State Funding

- Oregon has allocated \$55 M for planning
- Washington has allocated the following amounts:
  - *\$45 M for planning*
  - *\$1 B through the Move Ahead Washington revenue package to fund WA's share of the anticipated cost needed to complete the program*

## ▶ Federal Funding

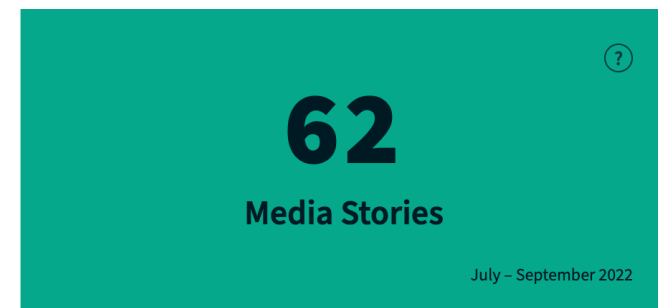
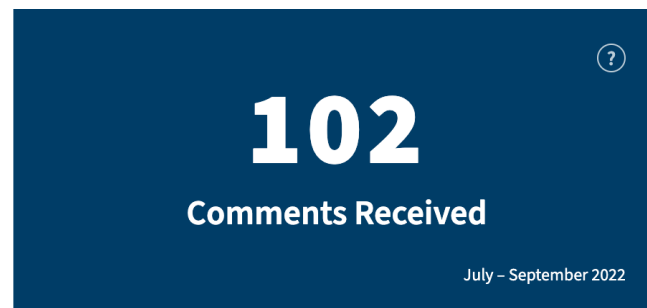
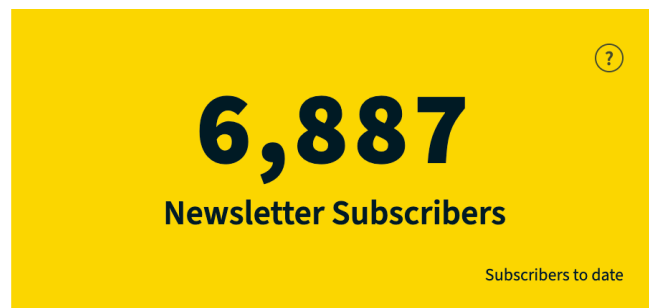
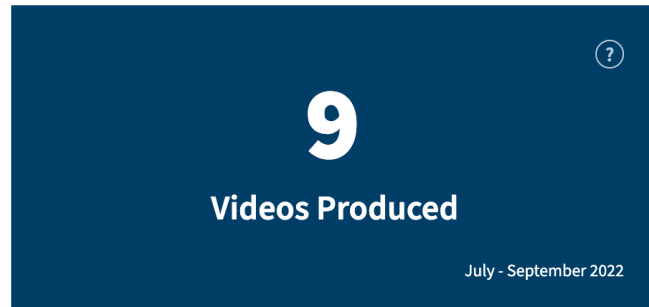
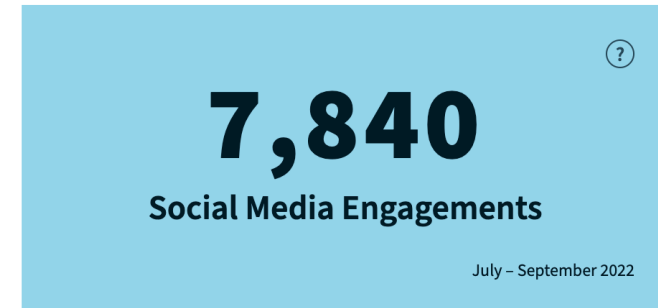
- Awarded a \$1 M Bridge Investment Program Planning Grant
- Submitted \$750 M Bridge Investment Program Construction Grant
- IBR recognized by President Biden as “one of the most economically significant bridge projects in the nation”

# 2022 Year in Review

## ► Communications

- Nearly 35,000 engagements with community members in 2022
- 2022 Public Relations Society of America (PRSA) awards received for IBR website, social media, and Bridge Stories video series
  - *Oregon Spotlight Award and Merit Award*
- Over 100 presentations to local, regional, and national organizations including neighborhoods and CBOs
- Tabled at 6 in-person community events resulting in conversations with nearly 500 people
- Hosted 3 equity roundtables to facilitate discussions on the importance of equity in transportation

# Community Engagement Highlights (July - September 2022)



# Recent Engagement

- ▶ **IBR Program Steering and Advisory Groups**
  - Community Advisory Group: 11/10
  - Equity Advisory Group: 11/21
  - Executive Steering Group: 12/16 (*upcoming*)
- ▶ **Program Briefings and Updates**
  - Washington State House Transportation Committee
- ▶ **Program Area Tours**
- ▶ **Community Engagement Events**
  - Equity Roundtable Event: Accessibility Through Infrastructure (Dec. 1)
  - 4 Stakeholder Organizations
  - 3 Neighborhood Associations
  - Vancouver Transportation and Mobility Commission

# Recent Program Updates

- ▶ Additional analysis on auxiliary lanes included in SDEIS
- ▶ U.S. Coast Guard Bridge Permit Process
- ▶ December 2022 Legislative Progress Report
  - As required by Washington’s 2021-2023 Supplemental Transportation Budget, ESSB 5689, the program has completed this progress report, which provides an overview of key program work that has occurred since June 2022



# Partner Conditions

- ▶ **The Modified Locally Preferred Alternative was endorsed by all eight local partner agencies this summer**
  - As part of the endorsement process, the program received 175 conditions reflecting partner priorities and requests for additional work in the following topical categories:
    - *Auxiliary Lanes/Shoulders*
    - *Community and Partner Engagement*
    - *Design*
    - *Equity*
    - *Finance*
    - *Climate Measurements*
    - *NEPA Process*
    - *Traffic*
    - *Transit*
    - *Tolling*

# Program Response to Partner Conditions

- ▶ **An initial response sent to each agency identifying how the following conditions are being incorporated into current program plans:**
  - Auxiliary lanes analysis, program financing, community engagement, high-quality aesthetic design, active transportation elements, freight access, workforce training programs
  - These responses are available on the IBR website
- ▶ **Remaining conditions are receiving more consideration to identify how they will be addressed**
  - Transit elements, GHG/VMT Analysis, tolling, highway shoulder design

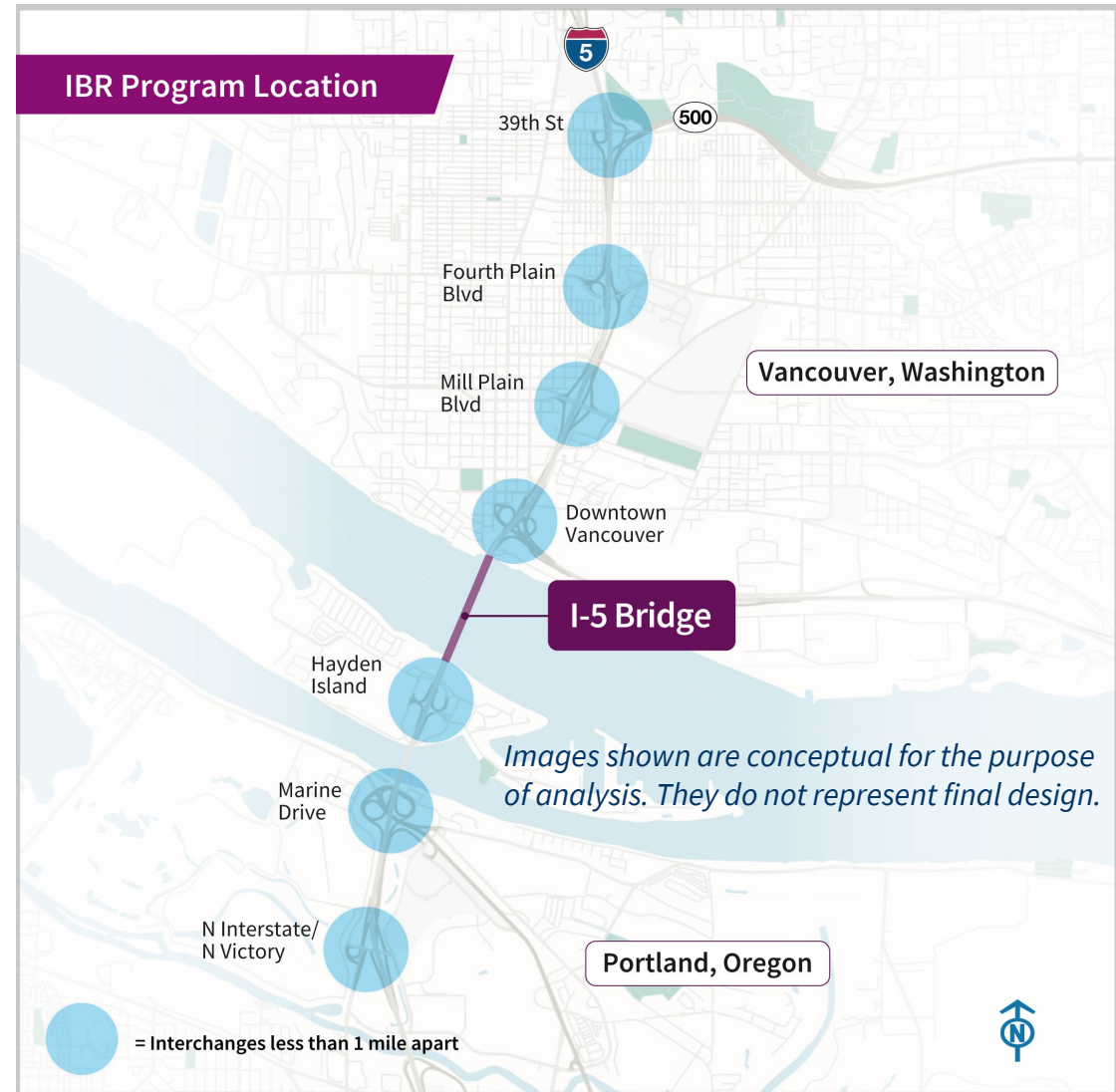
# Next Steps: SDEIS Analysis

- ▶ **Two alternatives are being studied in SDEIS**
  - Updated No Build Alternative
  - Modified LPA
- ▶ **The design being studied is conceptual**
  - General alignments and locations of transportation facilities
- ▶ **SDEIS will study the impacts, benefits, and mitigation**
  - Mix of quantitative and qualitative analysis
  - Proposes measures to address unavoidable adverse impacts
- ▶ **Public comment period on SDEIS**
  - Planned for summer 2023

Ch 1	Purpose and Need
Ch 2	Description of Alternatives
Ch 3	Existing Conditions and Environmental Consequences
Ch 4	Financial Analysis
Ch 5	Revised Draft Section 4(f) Evaluation
Ch 6	Public Involvement and Tribal Consultation

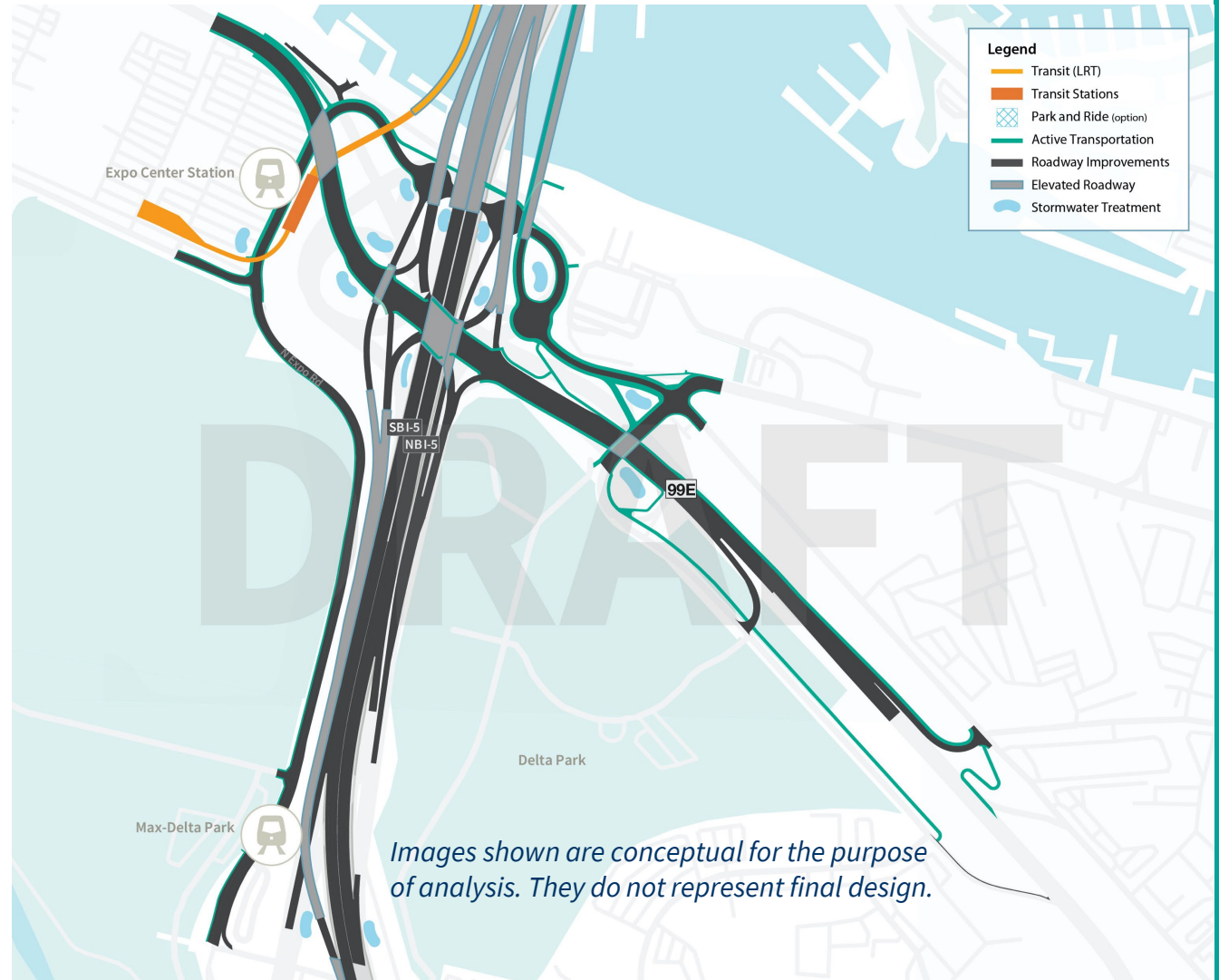
# IBR Modified LPA Improvements in SDEIS

- ▶ Conceptual design
- ▶ Local street connections and ramp locations for seven interchanges
- ▶ Possible locations for a park and ride at the Vancouver Waterfront and Evergreen
- ▶ Station locations at Hayden Island, Vancouver Waterfront, and Evergreen
- ▶ Active transportation pathways



# Improvements for Study: Marine Drive

- ▶ Marine Drive interchange configuration
- ▶ Shared use path connections between Hayden Island and North Portland
- ▶ Active transportation improvements in North Portland
- ▶ Local street connections and improvements



# Improvements for Study: Hayden Island & River Crossing

## ► Hayden Island Interchange

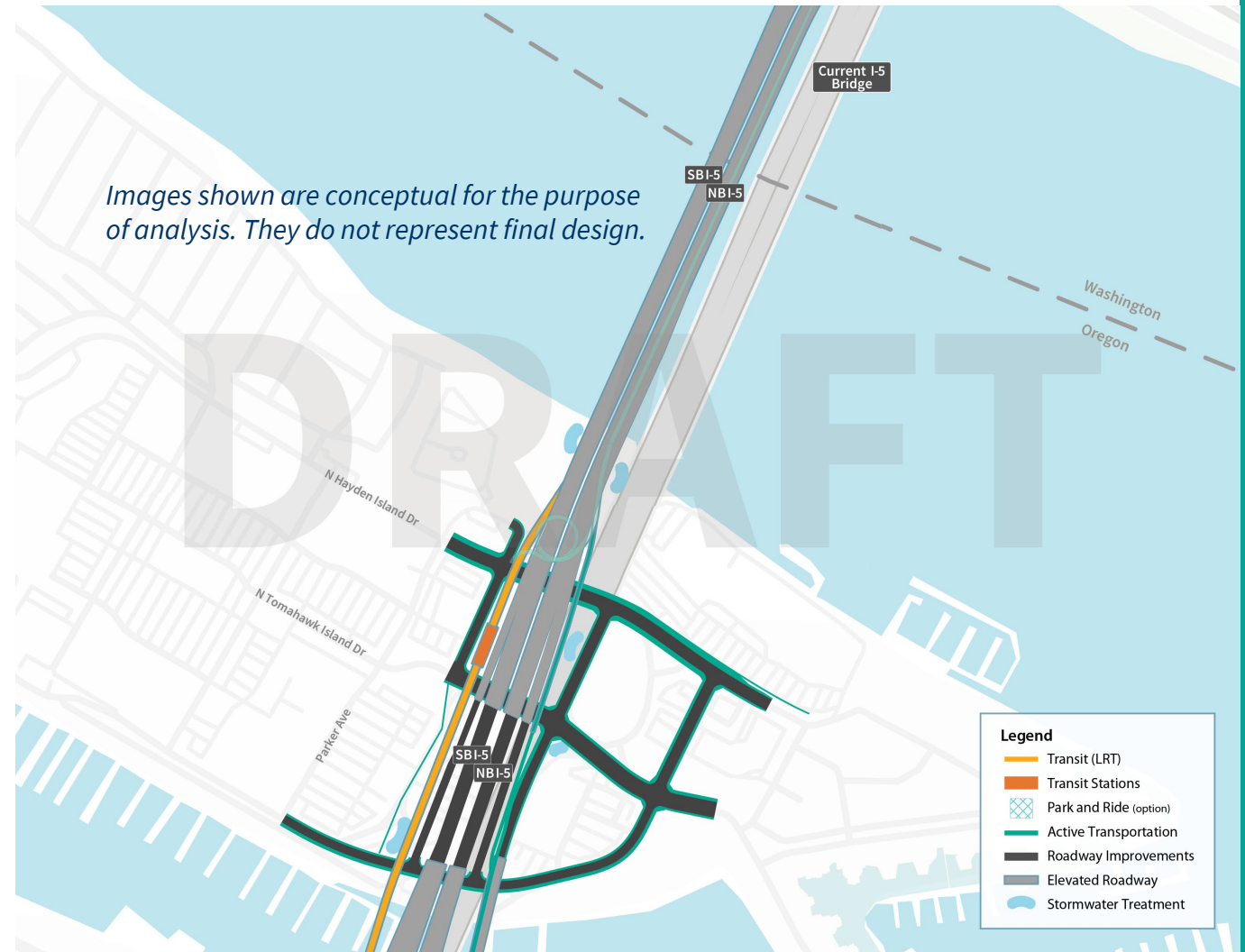
- Partial interchange configuration
- Active transportation
- Light rail station

## ► Arterial Bridge

- East of I-5
- Local connection between Hayden Island and North Portland

## ► River Crossing

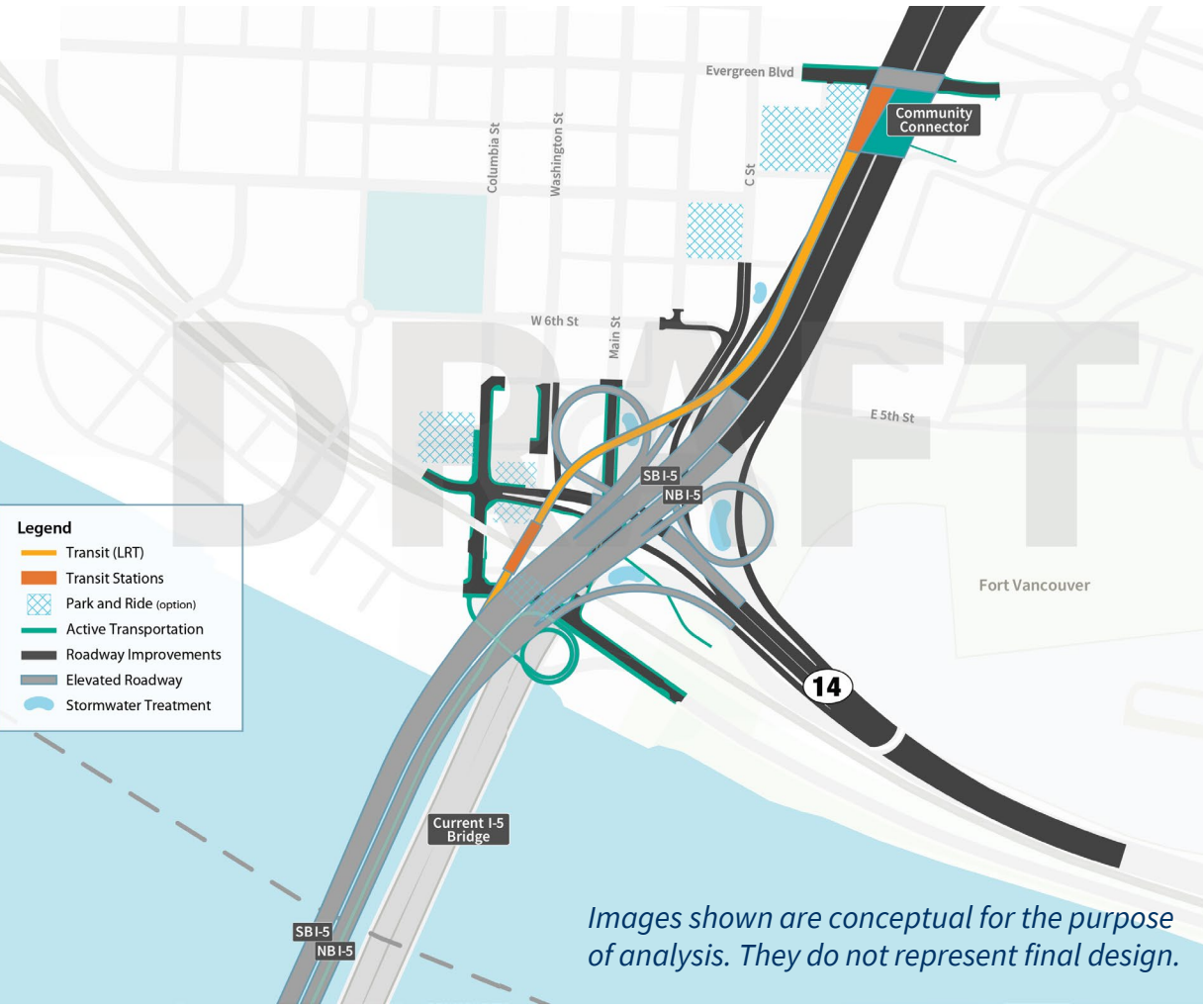
- West of existing bridge
- Aux lane(s) in each direction
- Active transportation pathway on northbound bridge
- Light rail on southbound bridge



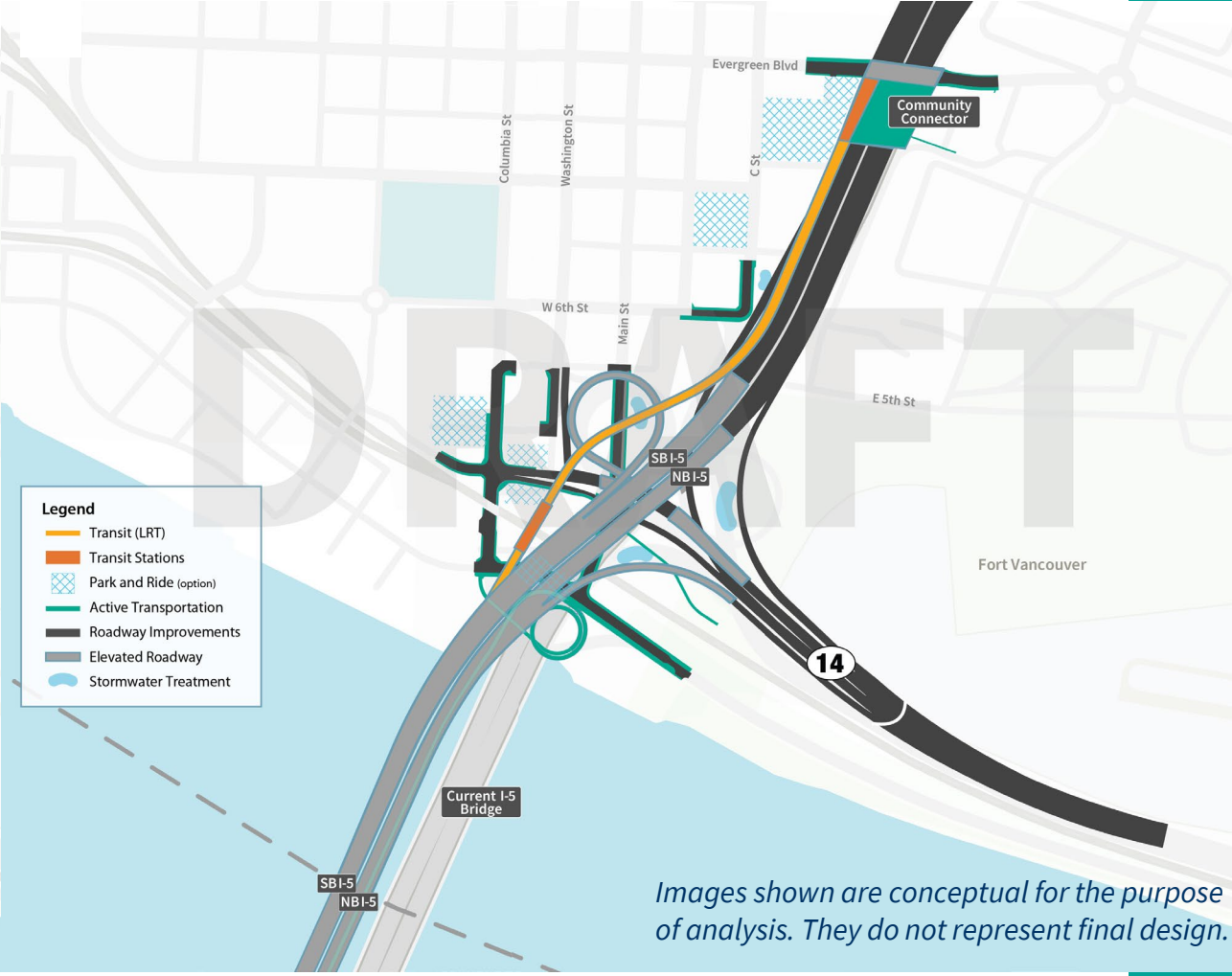
# Improvements for Study: Downtown Vancouver

- ▶ **Two variations of roadway alignment**
  - A range of alignment options is being studied to better understand the possible impacts in the constrained area of downtown Vancouver
- ▶ **Light Rail Transit**
  - I-5 alignment
  - Terminus near Evergreen Blvd
- ▶ **Potential transit Park and Ride locations**
  - Park and Ride locations are being studied to understand the impacts and benefits of each location
  - A decision has not been reached on whether Park and Rides will be built in Vancouver and will include input from program partners and the community
- ▶ **Proposed community connector**
- ▶ **Active transportation connections and improvements**
- ▶ **Connections to SR-14 and downtown Vancouver**

# Improvements for Study: Downtown Vancouver



Images shown are conceptual for the purpose of analysis. They do not represent final design.

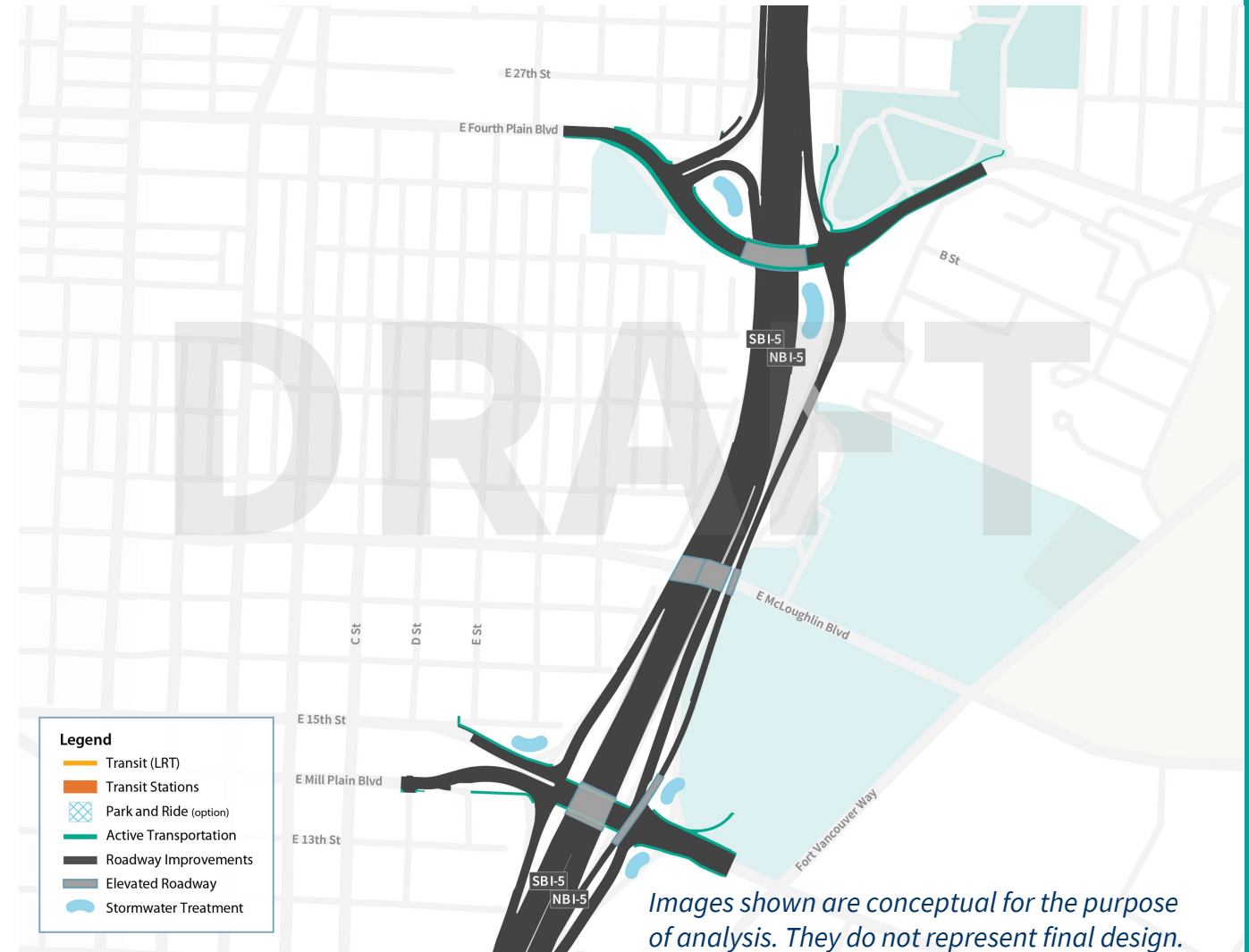


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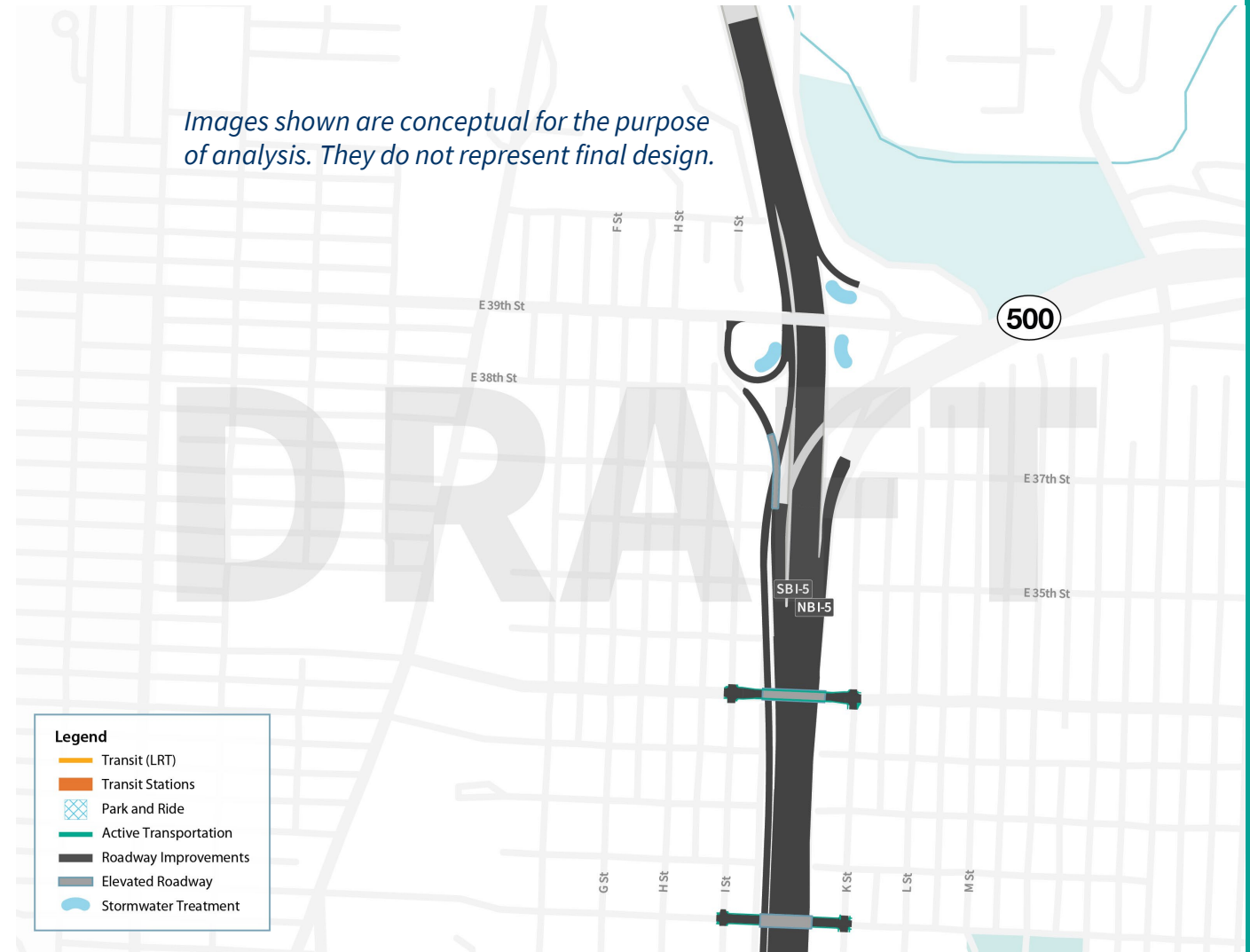
# Improvements for Study: Fourth Plain & Mill Plain

- ▶ Interchange improvements to Fourth Plain and Mill Plain
- ▶ Interchange to interchange connections
- ▶ Active transportation improvements



# Improvements for Study: North Vancouver

- ▶ Interchange to interchange connections
- ▶ Active transportation improvements



# Responding to Questions

- ▶ **How are you calculating the 36,000 metric tons/year?**
  - This represents avoided emissions by using the program’s spring 2022 estimate of “new system ridership” – 11,000 new daily transit riders, shifting from cars, walking, or biking.
  - This information will be refined during future modeling and analysis and presented in the NEPA document.



# Feedback and Discussion

- ▶ What questions or feedback do you have?

# IBR Cost Estimate and Financial Plan Process

Frank Green, Assistant Program Administrator

Ray Mabey, Assistant Program Administrator

Brent Baker, Financial Structures Lead

# IBR Program Estimate

- ▶ **A conceptual IBR cost estimate was developed in 2020 with the high end at \$4.8 B**
  - This estimate was intended to cover various bridge replacement options
  - The 2020 estimate was developed by applying inflation to previous CRC estimates and was based only on the scope of the CRC project
- ▶ **The 2022 IBR program cost estimate is based on the recently identified Modified Locally Preferred Alternative and includes estimates for the various project components in year of expenditure**
  - This estimate relies on the current scope, which has changed from the scope of the CRC project, and updated inflation assumptions

# Process to Develop the IBR Cost Estimate

- ▶ **A Cost Estimate Validation Process (CEVP) was recently completed to provide independent review and validation of project cost and schedule estimates**
  - CEVP is an estimation process that analyzes project risks to quantify the impacts and possible mitigation strategies to better limit the impacts of costs and/or delays
- ▶ **The CEVP process identifies potential risks as well as opportunities. Examples include:**
  - Potential schedule delays and associated inflation
  - Availability of materials and labor
  - Continued uncertainty in market conditions
  - Securing federal funding
  - Tolling

# Building Blocks of the Cost Estimate



## Updated Cost Estimate

- + Base Cost
- + Range of Identified Project-Specific Risks
- + Inflation (Year of Expenditure)

**\$ Updated Cost Estimate**

## What is included:

### Modified Locally Preferred Alternative Components:

- ▶ Replacement bridge over the Columbia River
- ▶ Replacement of the North Portland Harbor Bridge
- ▶ One auxiliary lane southbound and northbound
- ▶ Extension of light rail from Portland to Vancouver, with the addition of three new station locations
- ▶ Partial interchange on Hayden Island
- ▶ Full interchange on Marine Drive
- ▶ Access bridge from Hayden Island to Marine Drive



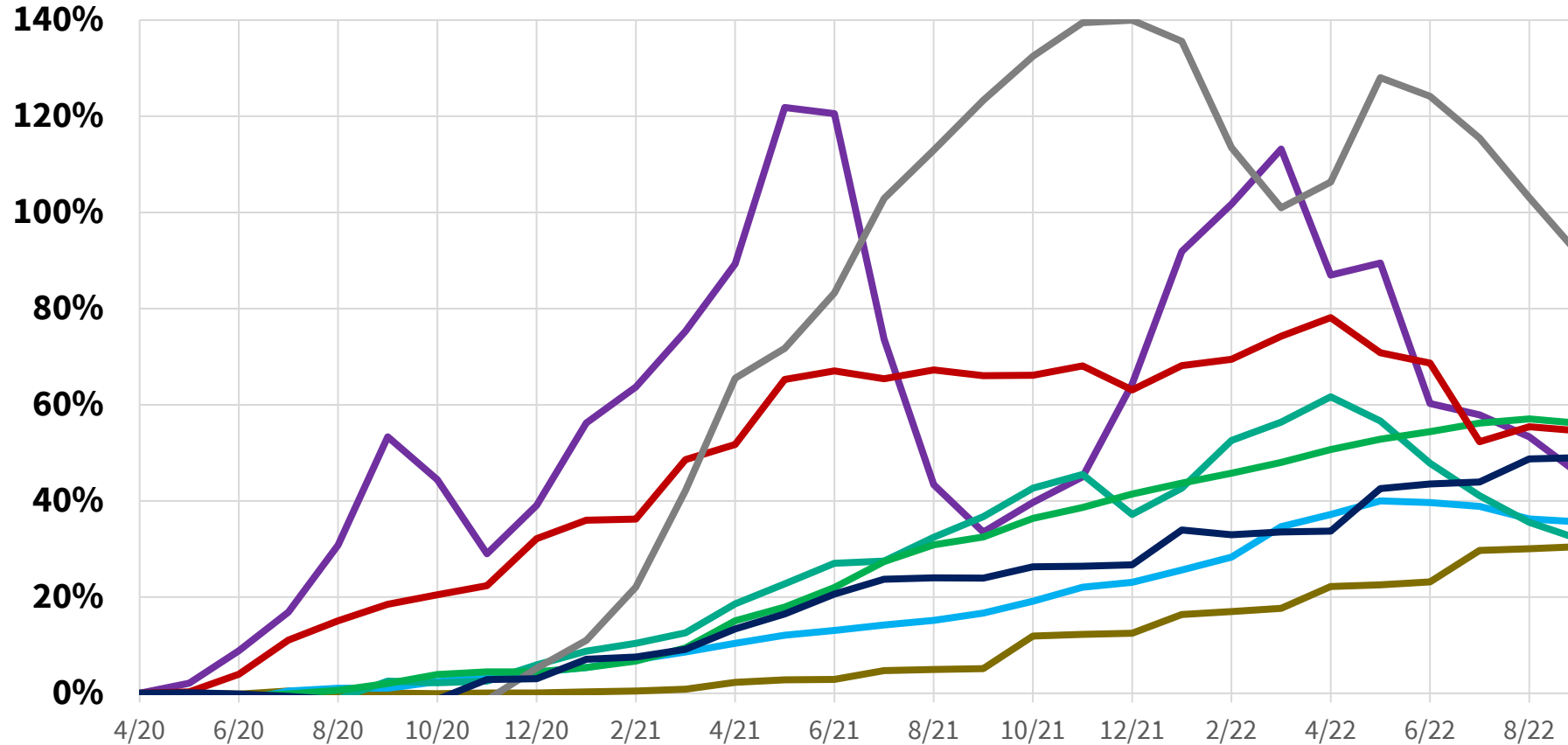
# 2022 CEVP Results

- ▶ **The base estimate range is from \$5 B - \$7.5 B**
  - The most likely cost is approximately \$6 billion.
  - This was calculated using CEVP to actively manage risks
- ▶ **Base Modified Locally Preferred Alternative scenario:**
  - One auxiliary lane in each direction
  - LRT – Direct Fixation Track (rather than embedded track)
  - LRT – At-Grade Evergreen Station

# Why Did the Estimate Increase?

- ▶ Historically high inflation rates, workforce shortages, and potential competition among regional construction projects
- ▶ Materials costs increases and availability due to global supply chain issues, and other market conditions
- ▶ Changes in scope since the previous project:
  - North Portland Harbor Bridge replacement
  - Light rail traveling on an elevated structure adjacent to I-5 in Vancouver, rather than track along city streets
  - Connections and ramps for the partial interchange on Hayden Island

# Construction Material Cost Trends



% Change: April 2020 - September 2022		
Steel Mill Products		91.3%
Plastic Construction Products		56.2%
Copper & Brass Mill Shapes		54.6%
Lumber and Plywood		45.6%
Gypsum Building Materials		49.0%
Aluminum Mill Shapes		32.1%
Truck Transportation		35.7%
'Bid Price' (new nonresidential building construction)		30.5%

Source: Bureau of Labor Statistics, producer price indexes, [www.bls.gov/ppi](http://www.bls.gov/ppi)

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# Proposed Funding Sources

## ► Cost Estimate: \$5 B - \$7.5 B (Most likely \$6 B\*)

\*Assuming base scenario with actively mitigated risks

Source	Amount in Millions of Dollars
Existing State Funding	\$100 M
Connecting WA Funding—Mill Plain Interchange	\$98 M
Move Ahead WA Funding	\$1,000 M
Anticipated Oregon Funding	\$1,000 M
Toll Funding	\$1,250 – 1,600 M <sup>1</sup>
Federal Grants	\$860 – 1,600 M <sup>2</sup>
FTA New Starts CIG Funding	\$900 – 1,100 M
<b>Anticipated Total</b>	<b>\$5,208 – 6,498 M</b>

<sup>1</sup> This range is consistent with CRC toll funding estimates. A Level 2 toll traffic and revenue study for IBR is underway and will be reviewed by both states. This range is a placeholder until spring 2023.

<sup>2</sup> Federal grant funding is unknown but being actively pursued. The top of this range is optimistic. The range will be refined as more information becomes available. Includes \$1M FHWA BIP grant already received.

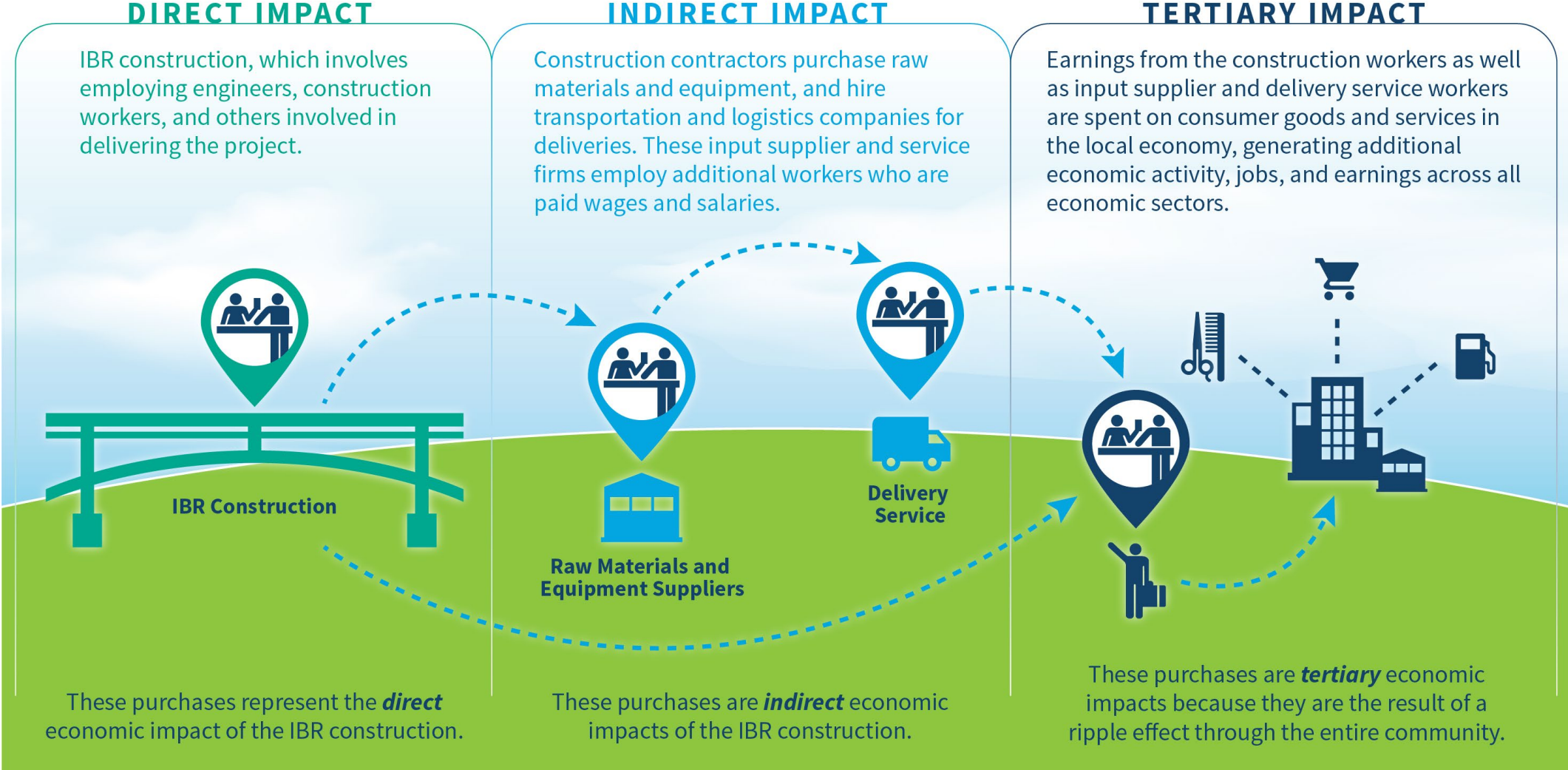


# Why Economic Impact Analysis (EIA)?

- ▶ EIA answers “What ‘bang for the buck’ do we get for investing in the I-5 IBR program?”
  - How will IBR construction affect our bi-state regional income?
  - How many jobs will IBR create?
  - What IBR aspects and funding sources have greater economic impacts?
- ▶ EIA complements other analyses:
  - Estimate the minimum net impacts using portion of the project funding originating outside the region that is uniquely tied to IBR (i.e., anticipated discretionary federal funding)
  - Represent the minimum impacts attributable to the project (local/regional funds spent on non-infrastructure investment may yield lower returns)



# EIA Impacts



# IBR Draft Economic Impacts

## ▶ Total Economic Activity:

- Direct Project Expenditures (Project Cost): **\$6.0 B**
- Total Gross Economic Activity: **\$11.7 B**
- Minimum Net New Economic Activity: **\$3.8 B\***

## ▶ Total Employment (person-year jobs):

- Direct Project Construction Employment: **18,900**
- Total Gross Employment: **43,700**
- Minimum Net New Employment: **14,400\***

## ▶ As the IBR scope and cost estimates are refined, we will continue to update the EIA analysis



*\* Minimum net values capture the effects attributed to anticipated federal discretionary grants that without the IBR would not be received and expended locally*

# Upcoming Work

- ▶ Continually update and refine project cost estimates and assess project budgets
- ▶ Program work to mitigate program risks and incorporate cost savings opportunities
  - The CEVP process identified high value places where the program will focus attention to minimize cost increase risks and maximize cost decrease opportunities. Examples:
    - *Some cost increase risks include:*
      - Completing NEPA and obtaining environmental approvals including NEPA and/or permits
      - Possible legal challenges of program environmental process
      - Delay in state matching funds
      - Scope changes
      - Unknown or uncertain conditions in the field during construction
    - *Some cost savings opportunities include:*
      - Value engineering
      - Design innovations
      - Project component design refinement



# Next Steps

- ▶ **The IBR cost estimate sets the foundation for the full Financial Plan**
  - Financial Plan will include additional detail on estimated funding sources and finance approach, anticipated in early 2023
- ▶ **The program is currently working on the Level 2 Toll Traffic & Revenue Study which will provide more information**
- ▶ **Controlling costs for mega projects is a dynamic process**
  - As work progresses, the program will follow best practices to help identify and address cost escalation risks, opportunities, and other financial considerations
- ▶ **The program will continue to share updates on cost and financial planning matters with legislators, stakeholders, and the community as part of the effort to ensure fiscal transparency and accountability**



# Feedback and Discussion

- ▶ What questions or feedback do you have?

# Next Steps

Greg Johnson, IBR Program Administrator

# Upcoming Engagement

## ▶ Late 2022

- Neighborhood and community-based organization (CBO) briefings
- Determine improvements of Modified LPA for analysis in the SDEIS
- Visually describe the improvements being studied in the SDEIS

## ▶ 2023

- Mini-grant partnerships with CBOs
- Affinity listening sessions
- Online and in-person open houses
- Community briefings
- Event tabling
- Public hearings for the SDEIS

## ▶ Future engagement (2023 -2026)

- Design elements such as bridge design, transit station design/access, bridge aesthetics, active transportation design
- Community benefits and workforce opportunities



# Next Steps

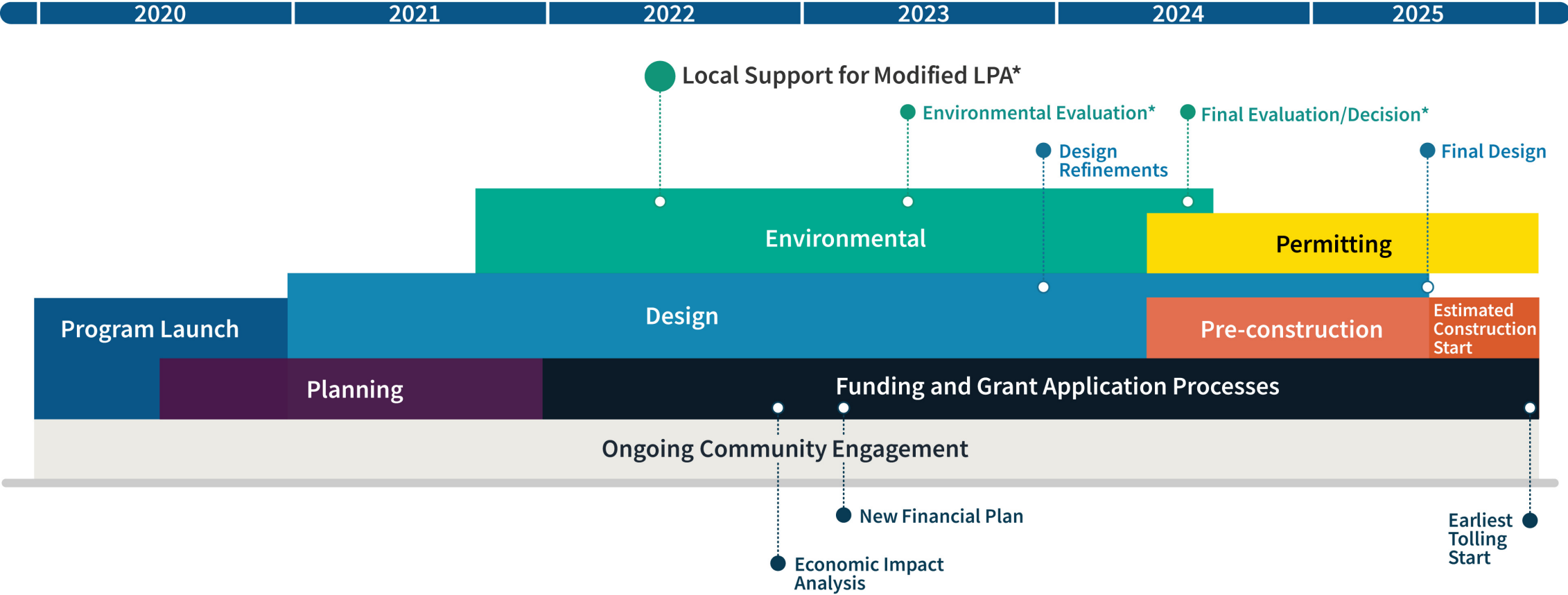
## ► 2023

- IBR Financial Plan Update
  - Sources and uses of funds and draft report available in Q1 of 2023
  - Final report available after reviews from Oregon & Washington State Treasuries
- Level 2 Toll T&R Study (August 2022 – May 2023)
  - Determines toll funding contribution estimate to inform the financial plan update required for federal grants in 2023
- Supplemental Draft Environmental Impact Statement (Summer 2023)
  - Federal environmental review process for the Modified LPA, including comprehensive community engagement efforts as well as SDEIS public comment period

## ► Beyond 2023

- Level 3 Toll T&R Study (Early 2024 – Late 2025)
  - Informs rate setting for pre-completion tolling
- Supplemental Final Environmental Impact Statement & Amended Record of Decision (2024)
  - Continued community engagement efforts and additional analysis and development of design details
- Begin Construction (Late 2025 – Early 2026)

# Program Schedule



\*Partner agencies confirmed their support for foundational components of the Modified LPA (Locally Preferred Alternative) to advance for further study in the environmental evaluation (Supplemental Draft Environmental Impact Statement or SDEIS). During the SDEIS, public comment will be taken for approximately 45 days and design refinements will be made the following months to respond to findings from the environmental review and public input. Full acceptance of a corridor-wide alternative will not be identified until after public comment and design refinement. At the conclusion of the review process, a Record of Decision (ROD) will be made and the program will enter into final design and pre-construction.



# Feedback and Discussion

- ▶ What questions or feedback do you have?



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# Thank you!

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