Joint Historic Landmarks Commission / Design Commission Briefing

Department of Community Services
Transportation Division

June 10, 2024

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

Prior Commission Briefings / DAR

Meetings

- **Briefing to Historic Landmark Commission** – September 9, 2019
- **Briefing to Design Commission** – September 19, 2019
- **Joint Briefing to Historic Landmark Commission / Design Commission** - July 14, 2020
- **Briefing to Historic Landmark Commission** – December 7, 2020
- **Joint Design Advice Request (DAR) Meeting** – March 4, 2021

  Notes: 3/4/21 - Design Commission Hearing Agenda | Portland.gov

Prior Presentation Topics

- Project Purpose and Need
- Range of alternatives
- Preferred Alternative Selection Process
- Preferred Alternative – Replacement Long Span (with no detour bridge)
  - Why not a bridge seismic retrofit instead?
- Public Outreach Overview

Today's Agenda

- Review Project Purpose
- Environmental Review Phase Key Findings
- Review Design Phase Key Activities
- Overview of Range of East Approach Bridge Types
- Next Steps

Why is there a need for a seismically resilient Willamette River Crossing?

- Regional earthquake risk: 1 in 3 chance of a magnitude 8+ earthquake occurring within 50 years
- Of the 9 downtown bridges, carrying 41 traffic lanes, none are expected to be immediately usable following a major earthquake.
- Need for seismically resilient crossing in downtown for immediate emergency response and regional recovery

Project location and regional emergency transportation routes

Environmental Review Phase

Key Findings

Environmental Review Phase

OVERVIEW

- **Federally Required:** The National Environmental Policy Act (NEPA) was signed into law in 1970.
- **Scope:** Perform a robust analysis of the impacts and benefits (people, place, planet) of a range of alternatives to help identify the option that best meets the purpose and need of the project with the least amount of harm.
- **Outcome:** The selection of a Preferred Alternative, based on analysis and community input, to be advanced into the Design Phase.

Preferred Alternative

REPLACEMENT LONG SPAN BRIDGE

with Tied Arch for eastside long span

with Cable Stay Tower for eastside long span

EARTHQUAKE READY BURNSIDE BRIDGE

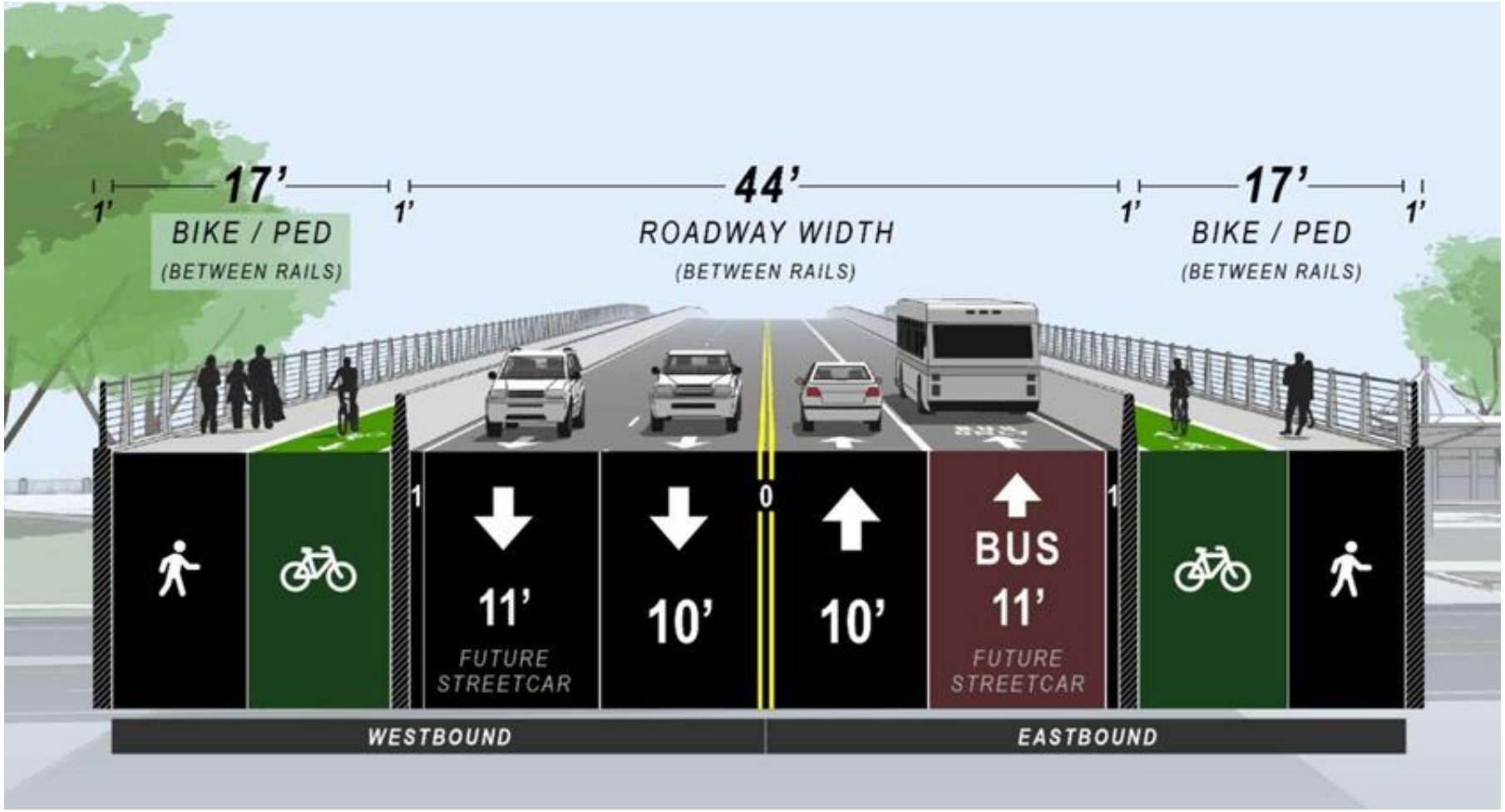
Preferred Alternative

CLOSE BRIDGE & DETOUR TRAFFIC DURING CONSTRUCTION

EARTHQUAKE READY BURNSIDE BRIDGE

Preferred Alternative

TYPICAL CROSS SECTION



EARTHQUAKE READY BURNSIDE BRIDGE

Districts Adjacent to Burnside Bridge

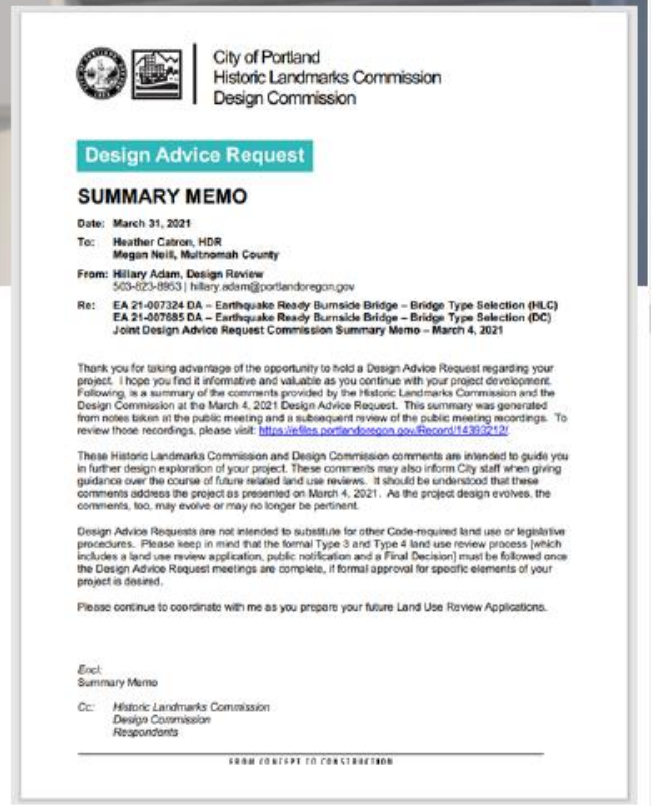
West Approach Bridge Type Findings

National Parks Service / FHWA (Section 106 / Section 4(f) Requirements):

- Above deck elements in the West Approach create an **Adverse Effect on the Skidmore / Old Town Historic District that is avoided with a girder concept**

Historic Landmarks Commission / Design Commission:

- Due to visual impacts to historic districts, Girder-styled west approach option **best meets zoning code and historic guidelines**
- **Preference for "observable asymmetry"** due to distinct differences in urban fabric on west and east sides



City of Portland
Historic Landmarks Commission
Design Commission

Design Advice Request

SUMMARY MEMO

Date: March 31, 2021

To: Heather Catron, HDR
Megan Neill, Multnomah County

From: Hillary Adam, Design Review
503-823-8963 | hillary.adam@portlandoregon.gov

Re: EA 21-007324 DA – Earthquake Ready Burnside Bridge – Bridge Type Selection (HLC)
EA 21-007685 DA – Earthquake Ready Burnside Bridge – Bridge Type Selection (DC)
Joint Design Advice Request Commission Summary Memo – March 4, 2021

Thank you for taking advantage of the opportunity to hold a Design Advice Request regarding your project. I hope you find it informative and valuable as you continue with your project development. Following, is a summary of the comments provided by the Historic Landmarks Commission and the Design Commission at the March 4, 2021 Design Advice Request. This summary was generated from notes taken at the public meeting and a subsequent review of the public meeting recordings. To review those recordings, please visit: https://efiles.portlandoregon.gov/Record/14303212/

These Historic Landmarks Commission and Design Commission comments are intended to guide you in further design exploration of your project. These comments may also inform City staff when giving guidance over the course of future related land use reviews. It should be understood that these comments address the project as presented on March 4, 2021. As the project design evolves, the comments, too, may evolve or may no longer be pertinent.

Design Advice Requests are not intended to substitute for other Code-required land use or legislative procedures. Please keep in mind that the formal Type 3 and Type 4 land use review process (which includes a land use review application, public notification and a Final Decision) must be followed once the Design Advice Request meetings are complete, if formal approval for specific elements of your project is desired.

Please continue to coordinate with me as you prepare your future Land Use Review Applications.

Encl:
Summary Memo

Cc: *Historic Landmarks Commission*
Design Commission
Respondents

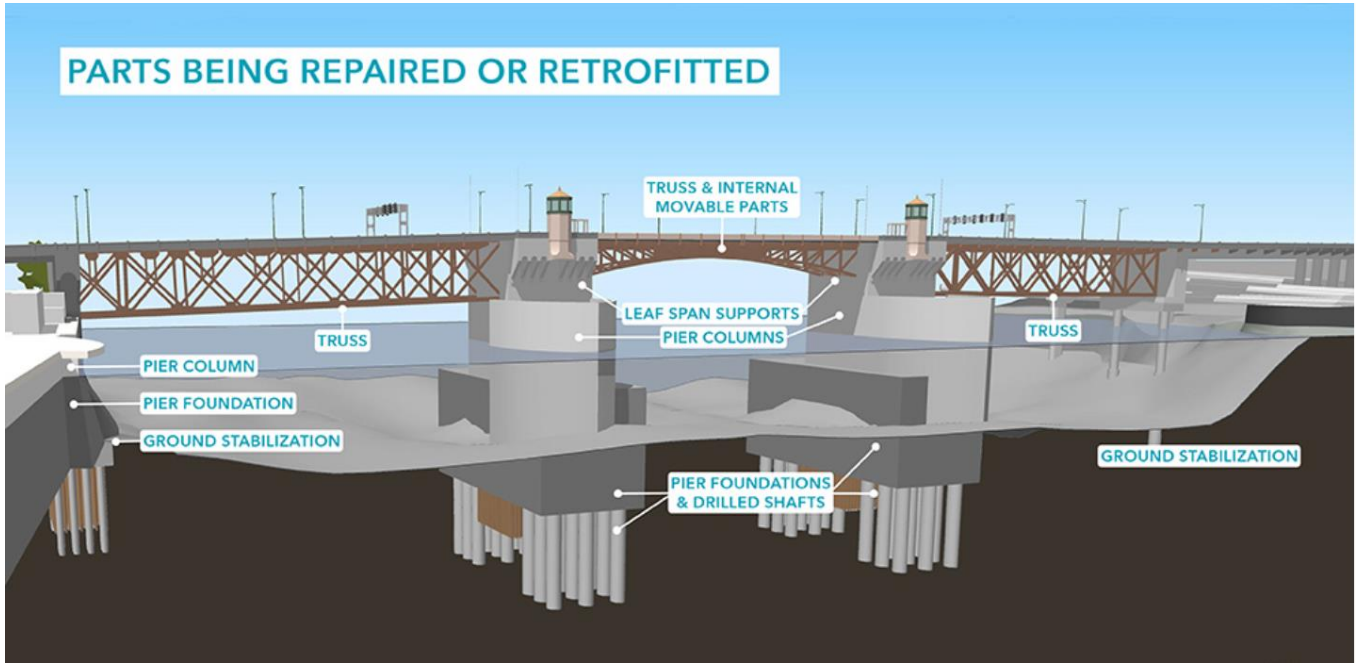
FROM CONCEPT TO CONSTRUCTION

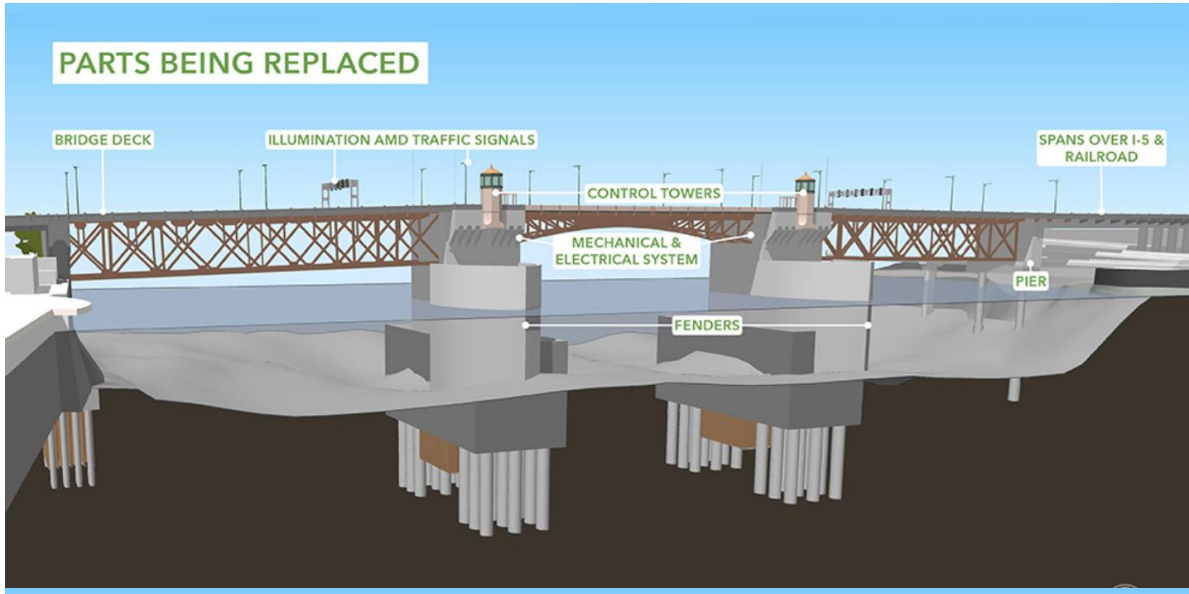
EARTHQUAKE READY BURNSIDE BRIDGE

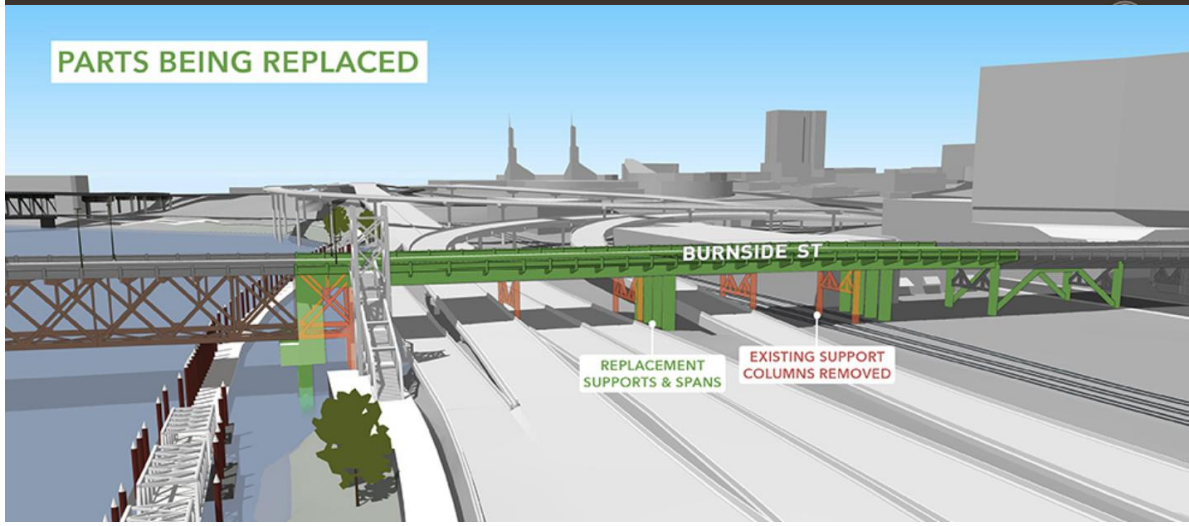
Preferred Alternative

WHY NOT A SEISMIC RETROFIT?

- *Same cost or more as a replacement*
- *Deteriorated bridge condition (95+ years old)*
- *Requires major structural modifications*
- *Remains a Section 106 Adverse Effect*







Programmatic Agreement

Signatories

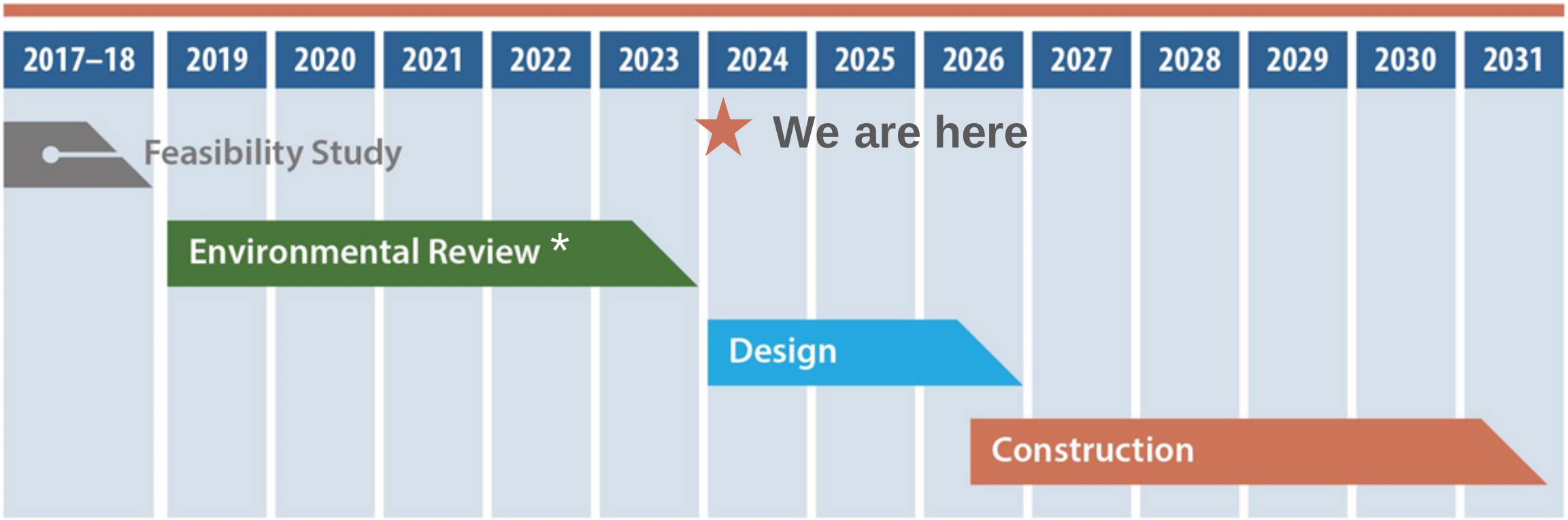
- Federal Highway Administration
- Oregon State Historic Preservation Office
- Oregon Department of Transportation
- Multnomah County
- Advisory Council on Historic Preservation

Key Findings: No adverse effect on any historic buildings

Purpose

- **Identifies** mitigation of adverse effects to the Burnside Bridge
- **Defines** an Archeological Identification, Monitoring, and Treatment Plan
- **Defines** minimization efforts for construction vibration
- **Identifies** stipulations for the protection and treatment of historic resources during construction

Project Timeline



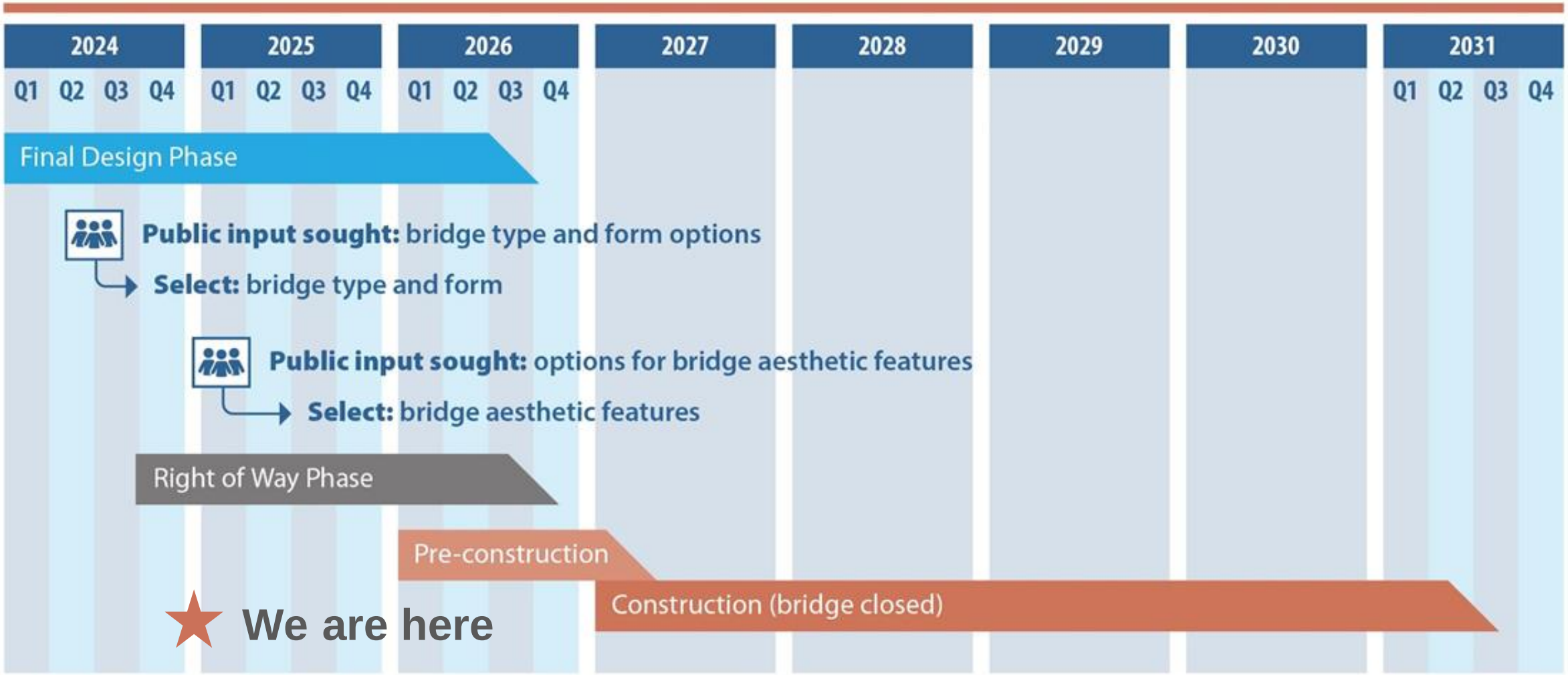
*Combined Final Environmental Impact Statement/Record of Decision published in federal register 1/31/204

Design Phase

Key Activities

EARTHQUAKE READY BURNSIDE BRIDGE

Design and Construction Timeline



Community Design Advisory Group (CDAG)

- **Who:** 21 community members who represent a wide range of interests and backgrounds
- **What:** CDAG will make recommendations on the aesthetic features of the new bridge
- **When:** Late 2023 through early-2025.
- Meetings are typically in-person at the Multnomah Building, open to the public, and live-streamed and recorded. A public comment period is reserved for public input at each meeting.
- Learn More: https://www.multco.us/earthquake-ready-burnside-bridge/community-design-advisory-group

Community Design Advisory Group

GUIDING PRINCIPLES

1. Urban/Site Context & User Experience

A. On-bridge Experience

B. Below-bridge Experience

C. Urban Context with Surroundings

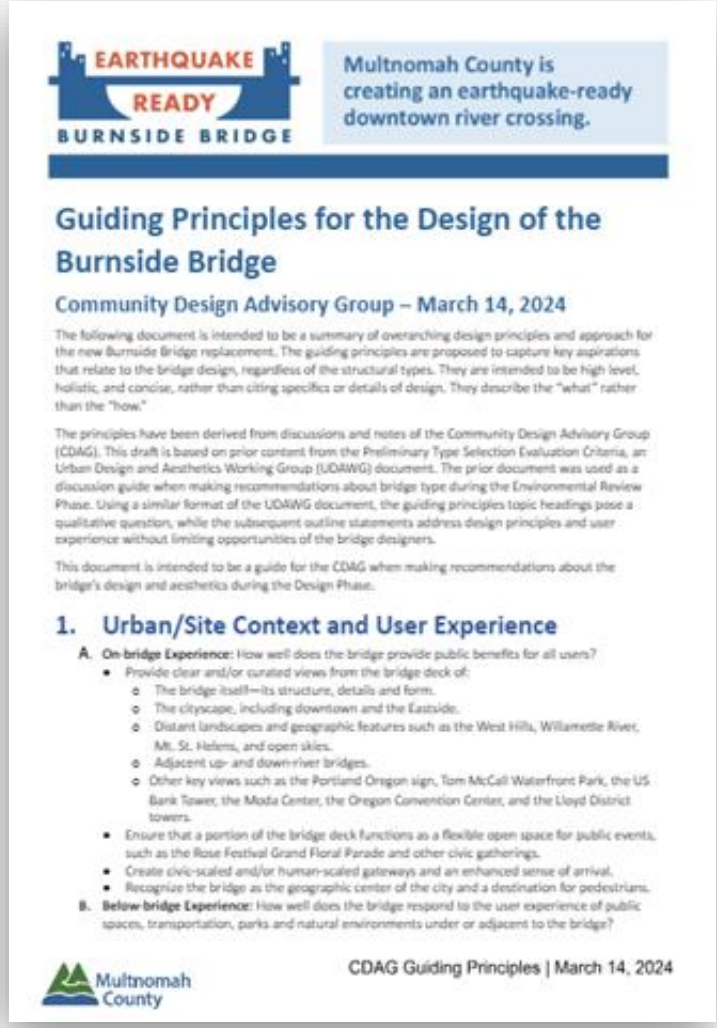
2. Visual Character & Aesthetics

A. Bridge Visual Coherence

B. Bridge Form & Style

C. Bridge Aspirations & Design Flexibility

D. Ped & Cyclist Connectivity



EARTHQUAKE READY BURNSIDE BRIDGE

Multnomah County is creating an earthquake-ready downtown river crossing.

Guiding Principles for the Design of the Burnside Bridge

Community Design Advisory Group – March 14, 2024

The following document is intended to be a summary of overarching design principles and approach for the new Burnside Bridge replacement. The guiding principles are proposed to capture key aspirations that relate to the bridge design, regardless of the structural types. They are intended to be high level, holistic, and concise, rather than citing specifics or details of design. They describe the "what" rather than the "how."

The principles have been derived from discussions and notes of the Community Design Advisory Group (CDAG). This draft is based on prior content from the Preliminary Type Selection Evaluation Criteria, an Urban Design and Aesthetics Working Group (UDAWG) document. The prior document was used as a discussion guide when making recommendations about bridge type during the Environmental Review Phase. Using a similar format of the UDAWG document, the guiding principles topic headings pose a qualitative question, while the subsequent outline statements address design principles and user experience without limiting opportunities of the bridge designers.

This document is intended to be a guide for the CDAG when making recommendations about the bridge's design and aesthetics during the Design Phase.

1. Urban/Site Context and User Experience

A. **On-bridge Experience:** How well does the bridge provide public benefits for all users?
- Provide clear and/or curated views from the bridge deck of:
  - The bridge itself—its structure, details and form.
  - The cityscape, including downtown and the Eastside.
  - Distant landscapes and geographic features such as the West Hills, Willamette River, Mt. St. Helens, and open skies.
  - Adjacent up- and down-river bridges.
  - Other key views such as the Portland Oregon sign, Tom McCall Waterfront Park, the US Bank Tower, the Moda Center, the Oregon Convention Center, and the Lloyd District towers.
- Ensure that a portion of the bridge deck functions as a flexible open space for public events, such as the Rose Festival Grand Floral Parade and other civic gatherings.
- Create civic-scaled and/or human-scaled gateways and an enhanced sense of arrival.
- Recognize the bridge as the geographic center of the city and a destination for pedestrians.

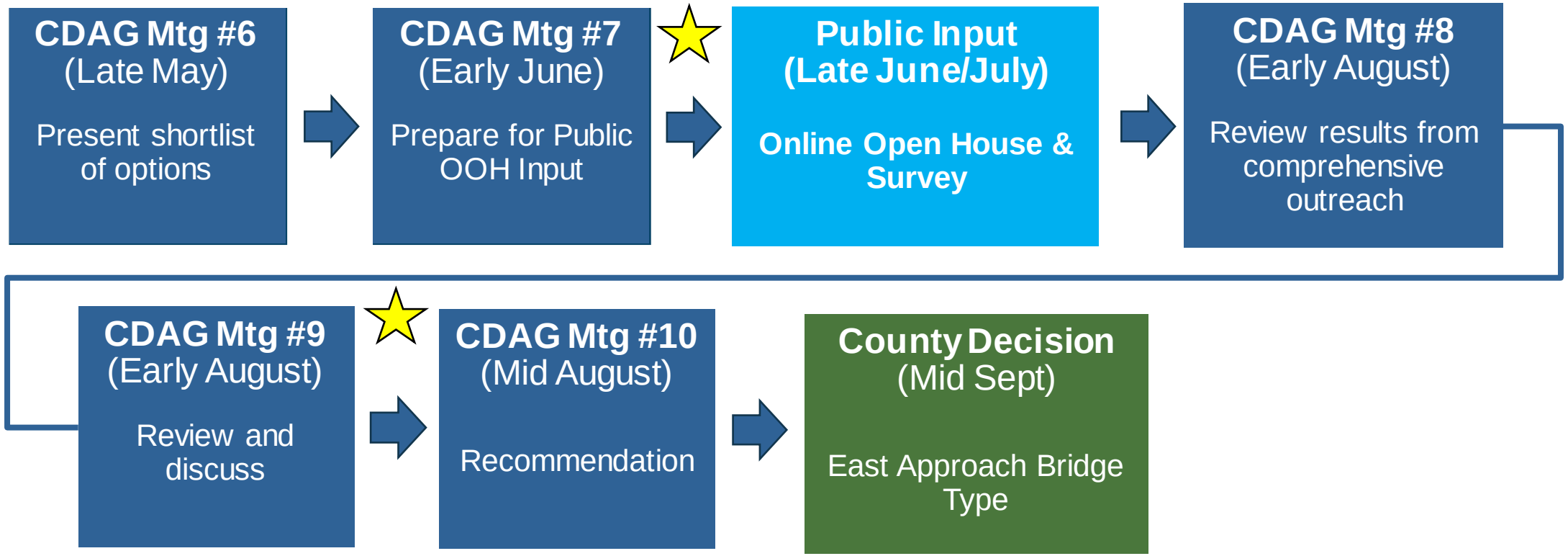
B. **Below-bridge Experience:** How well does the bridge respond to the user experience of public spaces, transportation, parks and natural environments under or adjacent to the bridge?

Multnomah County

CDAG Guiding Principles | March 14, 2024

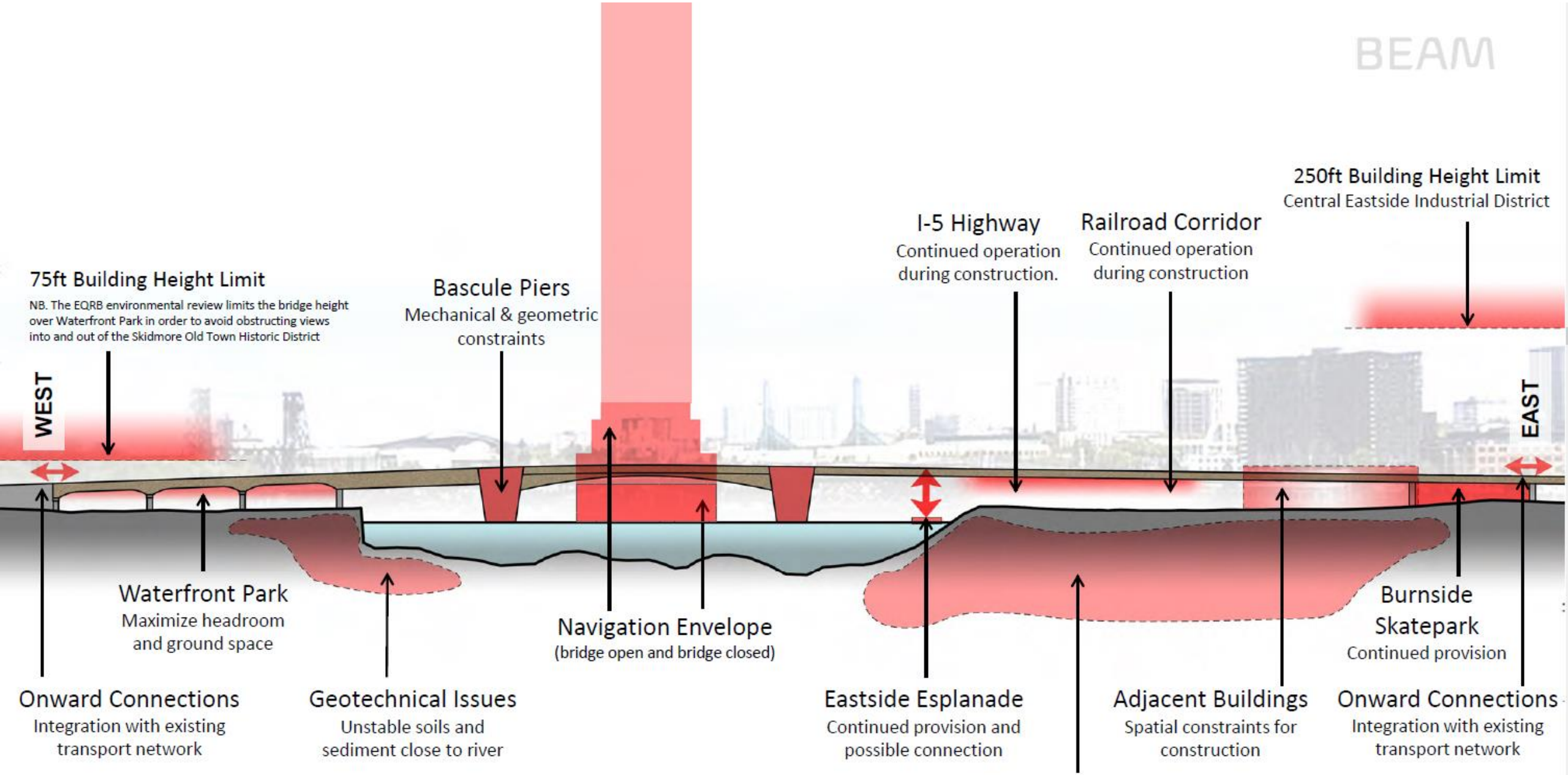
Provided with Meeting Info Packet

Road to East Approach Type Decision

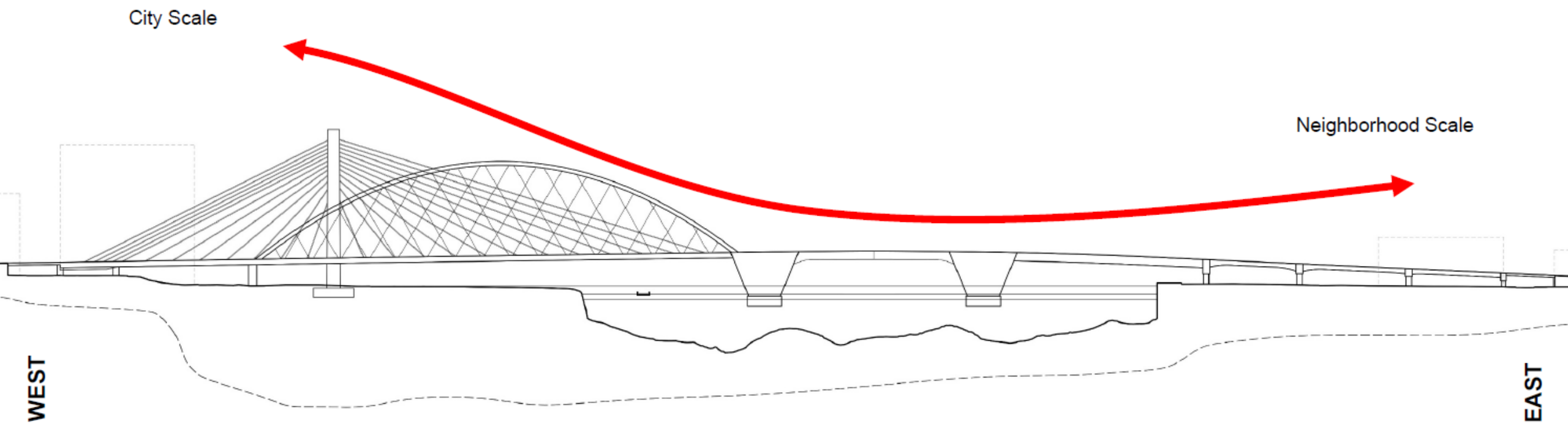


Engagement with Historic Landmarks/Design Commissions, feedback provided to CDAG

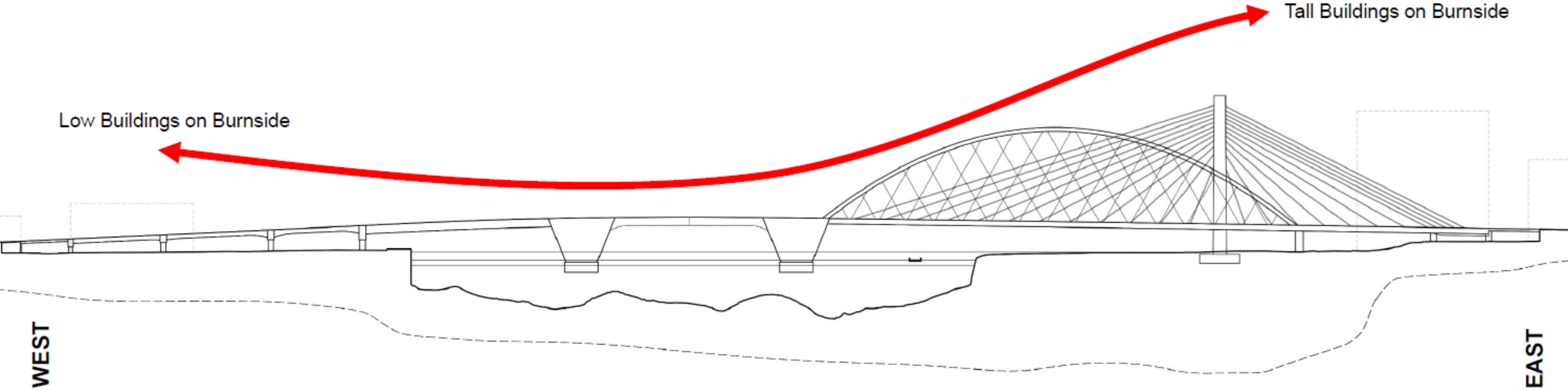
Range of East Approach Bridge Types



Constraints > physical restrictions

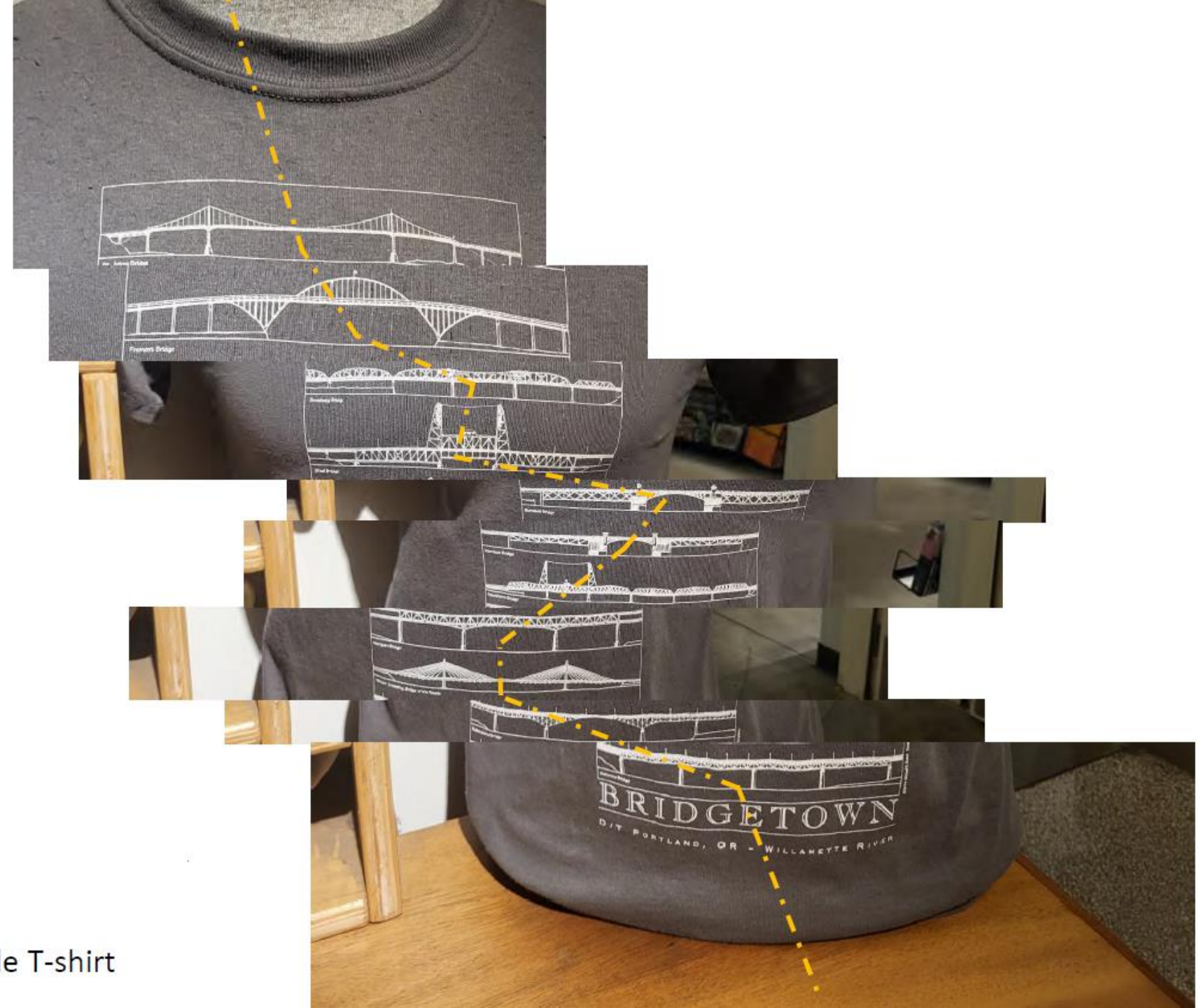


East-west scale differential (City)

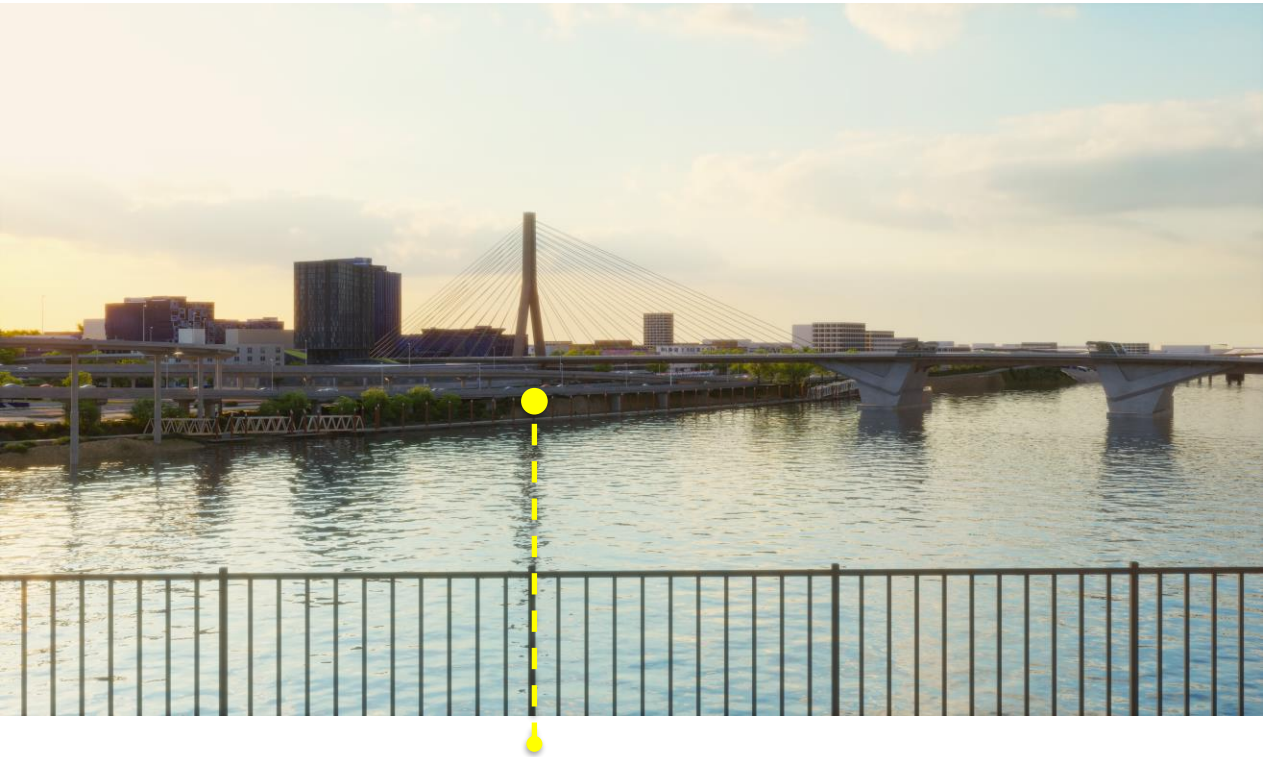


East-west scale differential (Burnside)

Convenient bridge iconography



The unsellable T-shirt



Axial river view southwards from CL of downstream bridges

View northwards on Naito Parkway

Cable Stayed Bridge

View northwards on Willamette

View northwards on I-5

View northwards on Naito Parkway

Arch Bridge

View northwards on Willamette

View northwards on I-5

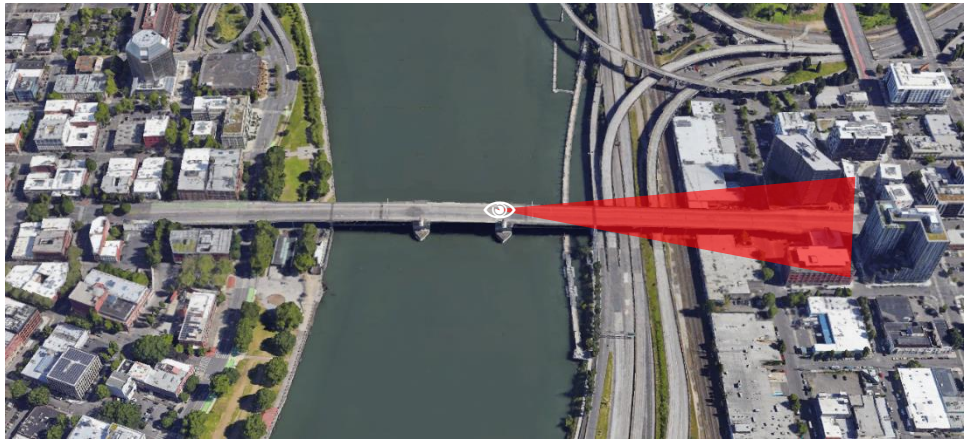
Three Bridges in One

View north on CL of river orthogonal to bridge

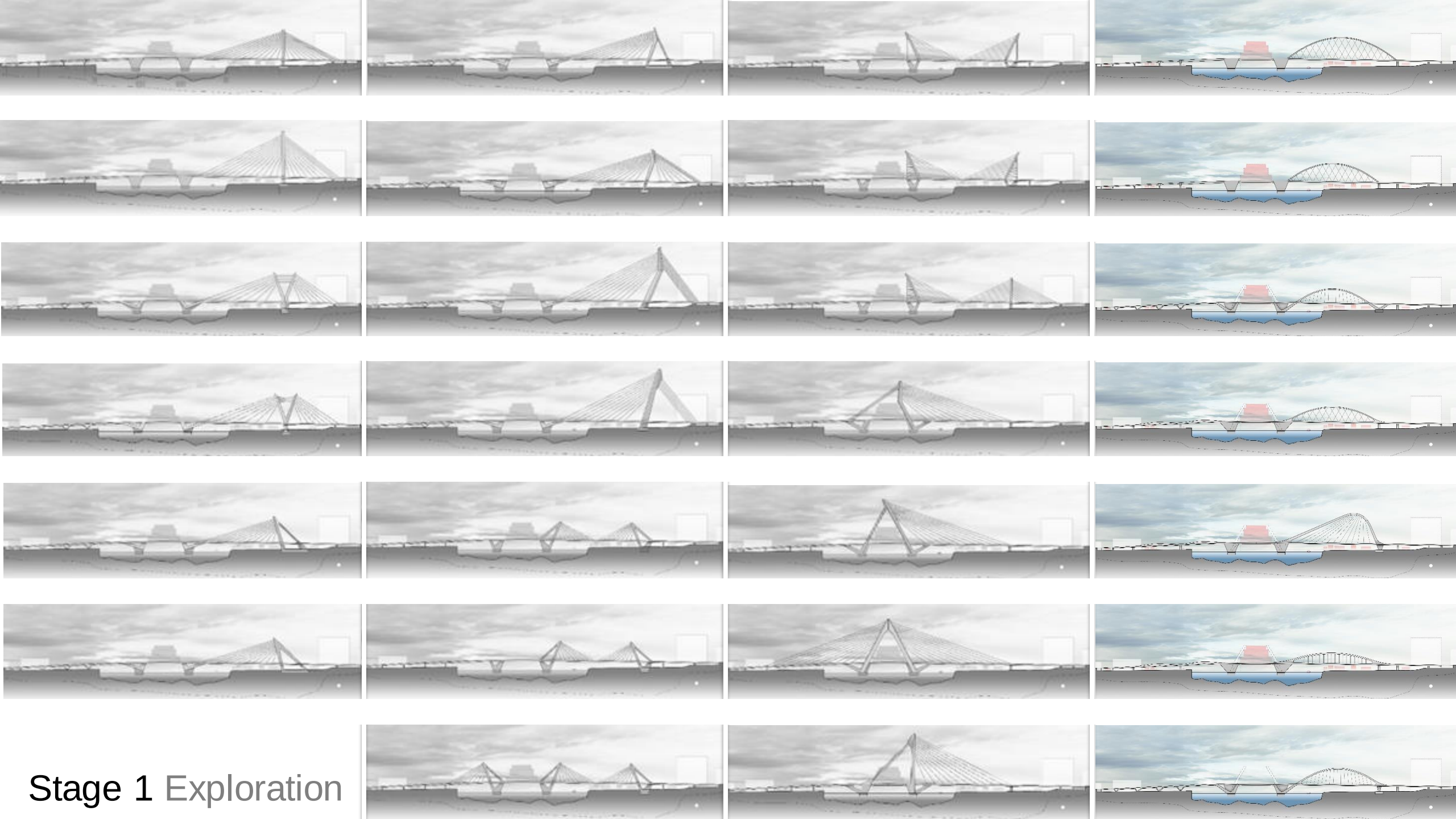
View northwards on I-5

CONCRETE BRIDGE TOWER

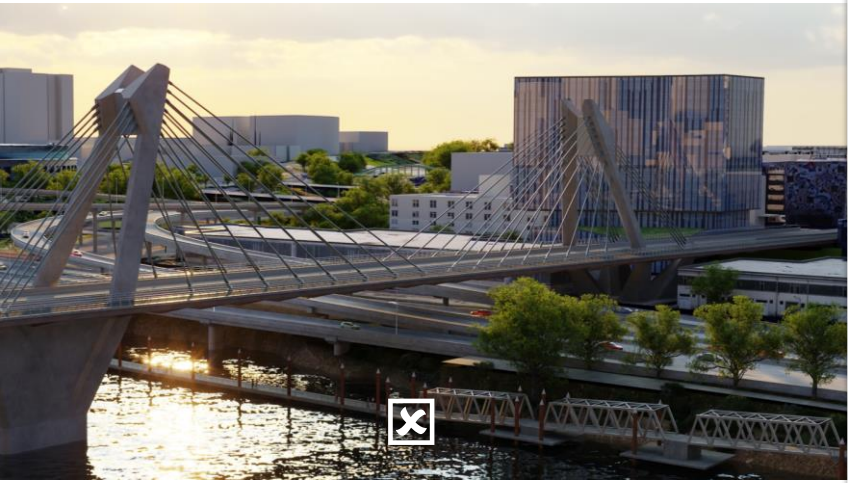
WEATHERING STEEL ARCH

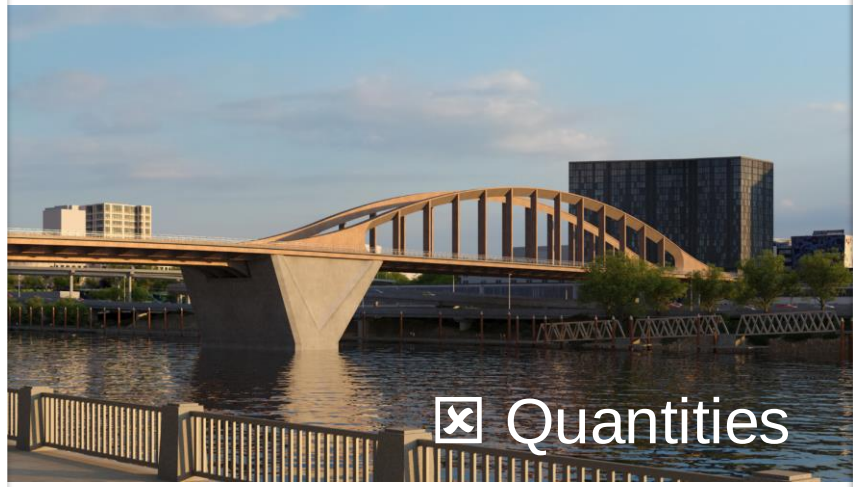


Axial view eastwards on Burnside

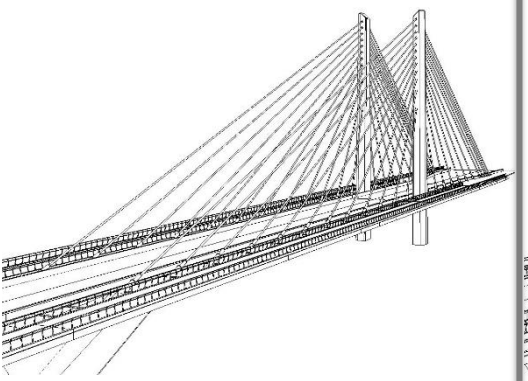


Stage 1 Exploration

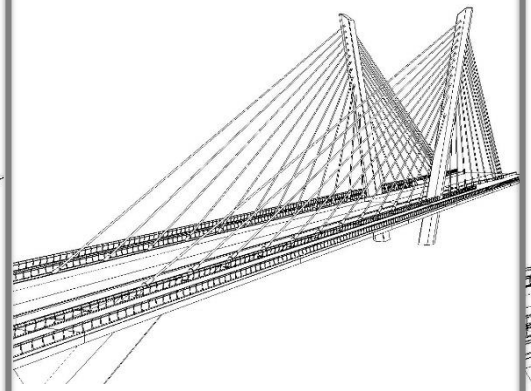




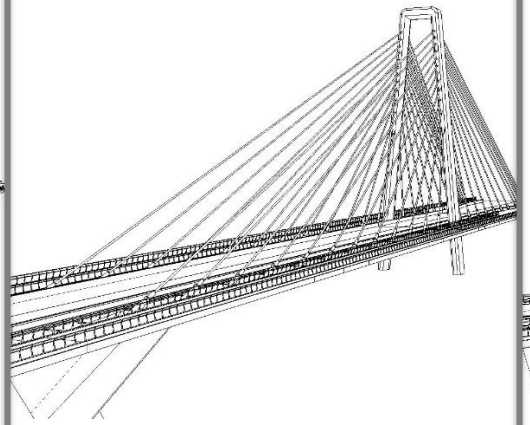
Stage 2 Screening



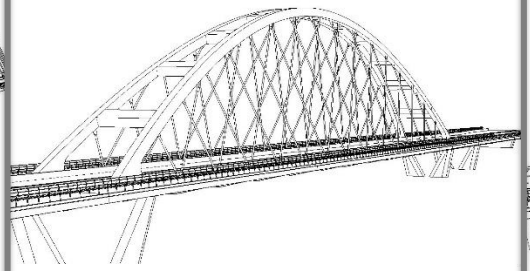
Goalpost cable stayed tower



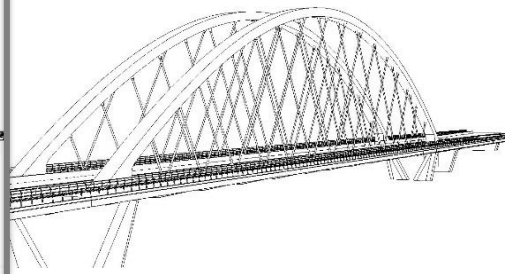
Valley cable stayed tower



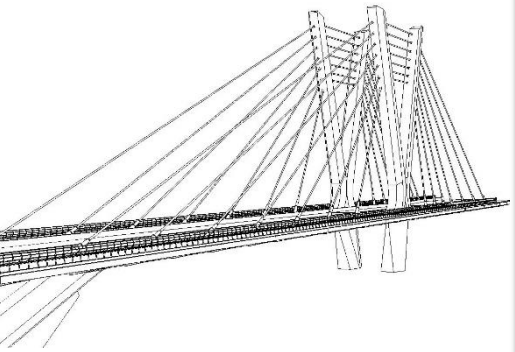
Hooped cable stayed tower



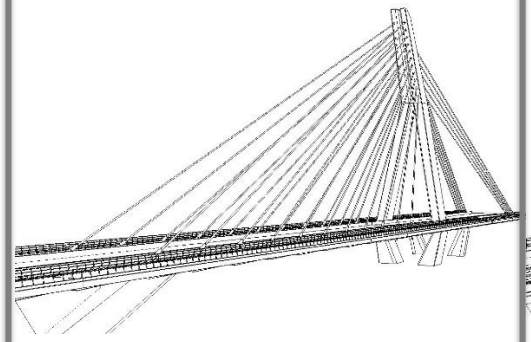
Braced basket-handle arches



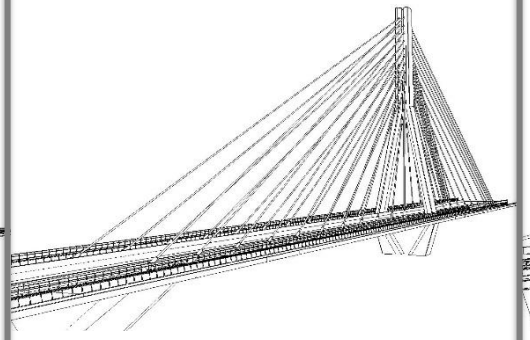
Unbraced through-arches



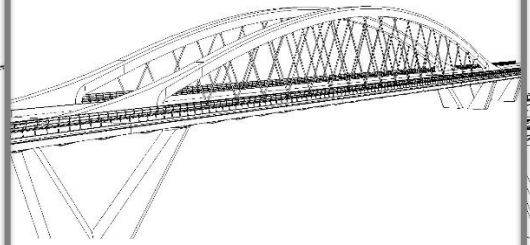
Y-towers (longitudinal)



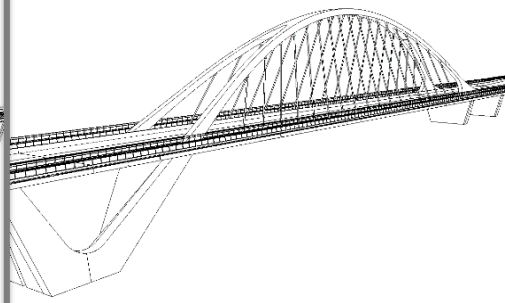
Cranked cable stayed tower



Inverted-Y tower (transverse)



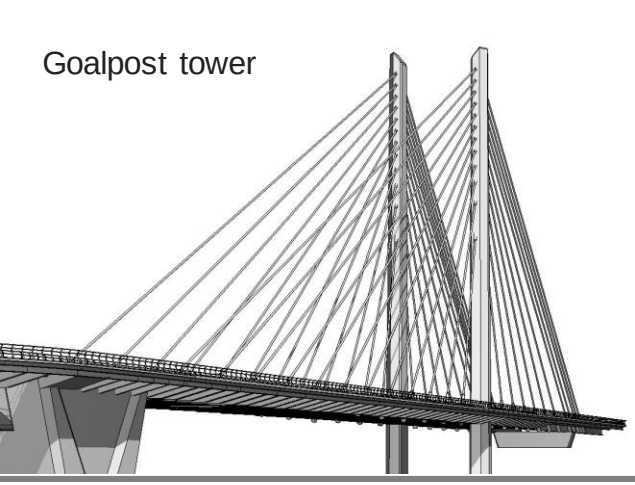
Low unbraced through-arches



Asymmetric basket-handle bridge

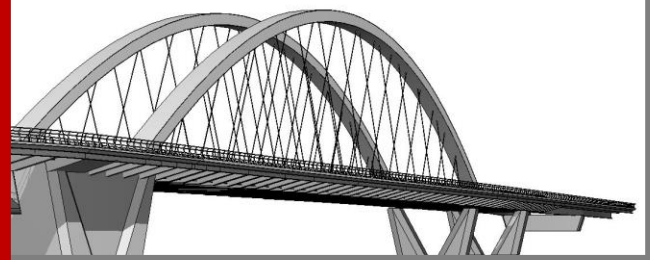
Stage 3 Evaluation

Goalpost tower



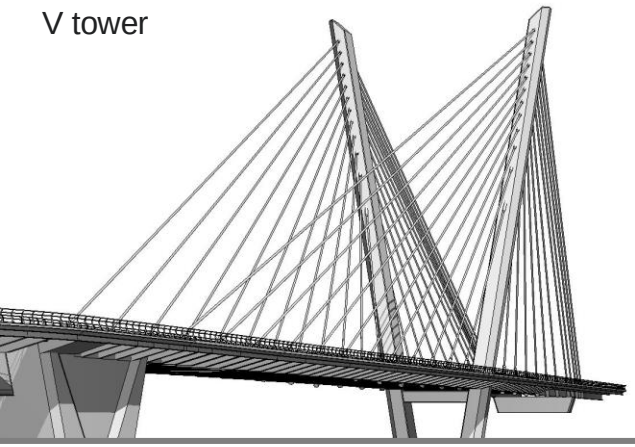
Tilikum Crossing, Willamette River OR

Unbraced through-arches



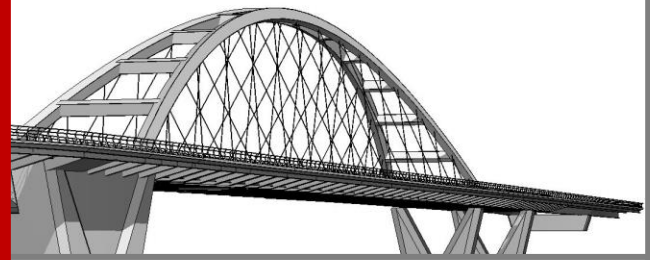
Hastings Bridge, Mississippi River MN

V tower



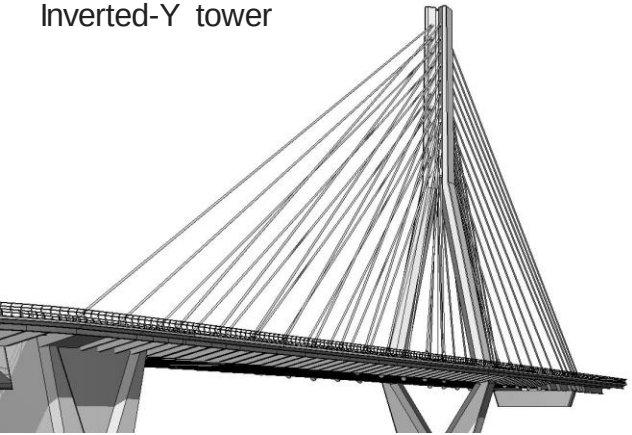
Tappan Zee Bridge, Hudson River NY

Braced basket-handle arch



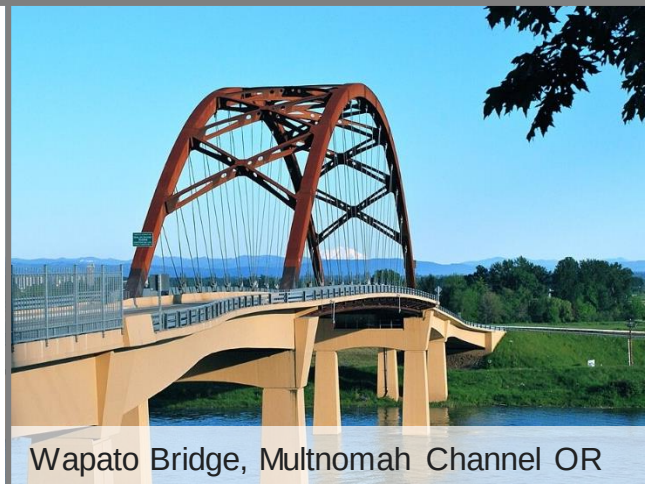
Lowry Ave Bridge, Mississippi River MN

Inverted-Y tower



Veterans Memorial Bridge, Ohio River OH

Braced vertical arches



Wapato Bridge, Multnomah Channel OR

CS1 - Goalpost tower

CS 2 - V tower

CS 3 - Inverted-Y tower

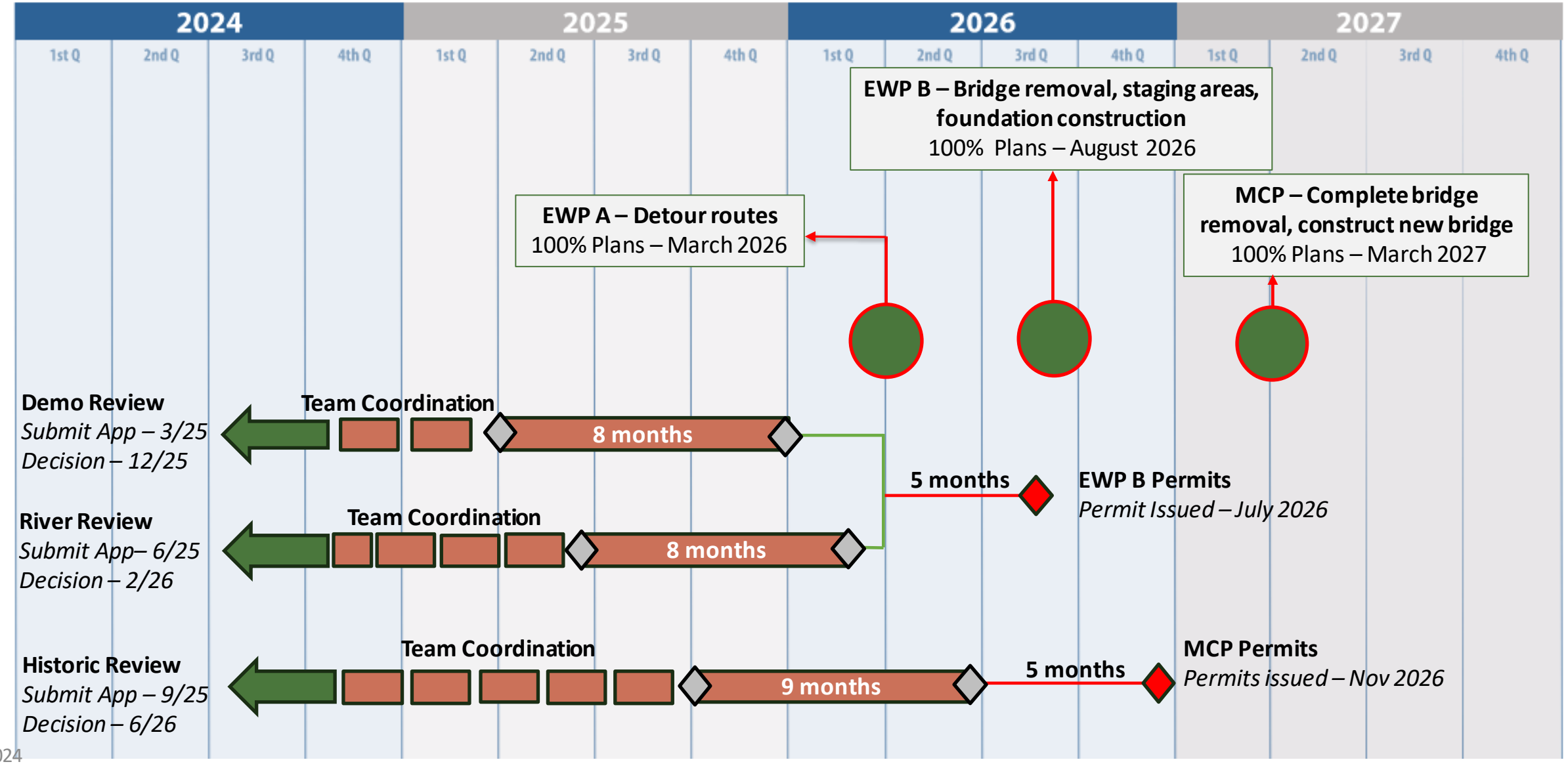
TA1 – Unbraced vertical arch

TA2 - Braced basket-handle arch

TA3a – Braced vertical arch (short)

Next Steps

Land Use Application Timelines



Upcoming Commission Engagement

August 2024 Design Advice Request // Proposed Topics

- Seek input on Type IV Demolition Review criteria
- Review Section 106
- Project Update

Questions?


Thank you