



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

BETTER – SAFER – CONNECTED

September 29, 2020

Urban Design and Aesthetics Working Group (UDAWG) – Agenda Meeting #1

Project:	Earthquake Ready Burnside Bridge (EQRB)
Subject:	Urban Design and Aesthetics Working Group
Date:	Tuesday, September 29, 2020
Time:	1:00 PM – 3:00 PM
Location:	WebEx (see email for link)

WORKING GROUP MEMBERS

Randy Gragg, Executive Director, Portland Parks Foundation
Bill Will, Public Works Artist
Paddy Tillett, ZGF
Chris Herring, Artistic Director, Portland Winter Lights Festival
Megan Crosby, Urban Development + Partners
Ian Williams, Deadstock Coffee
Priscilla Macy, Oregon Outdoor Coalition
Izzy Armenta, Oregon Walks
Dave Todd, Portland Rose Festival
Brian Kimura, Japanese American Museum of Oregon

AGENCY GROUP MEMBERS

Patrick Sweeney, PBOT
Lora Lillard, BPS
Hillary Adam, BDS
Tate White, PPR
Justin Douglas, Prosper Portland
Bob Hastings, TriMet
Magnus Bernhardt, ODOT

PROJECT TEAM MEMBERS

Megan Neill, Multnomah County
Ian Cannon, Multnomah County
Mike Pullen, Multnomah County
Heather Catron, HDR
Steve Drahota, HDR
Cassie Davis, HDR
Michael Fitzpatrick, HDR
Katy Segura, HDR
Jeff Heilman, Parametrix
Allison Brown, JLA
Carol Mayer-Reed, Mayer/Reed Architecture
Jeramie Shane, Mayer/Reed Architecture
Josh Carlson, Mayer/Reed Architecture
Anne Monnier, KPFF



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Purpose:

The purpose of the UDAWG is to serve as a technical resource body to the CTF for urban design and aesthetics by:

- *Providing informed insights and opinions on the visual features for each type selection option*
- *Recommending measures to enhance aesthetic opportunities or mitigate potential visual impacts*
- *Representing urban design and aesthetic interests*
- *Reflecting the character of Portland by suggesting place-making opportunities*

Outcomes:

The outcomes for the UDAWG group are to:

- *Inform a set of feasible bridge type options for the CTF's consideration*
- *Inform a project-specific Visual Performance Standard for use during the Type Selection and Final Design phases*
- *Recommend visual and aesthetic evaluation criteria for consideration by the CTF*

Agenda:

Time	Session	Lead
12:30 p.m.	Early Arrivals <ul style="list-style-type: none">• WebEx meeting platform will be available for folks that want to join early and test computer functions before meeting start	Project Team
1:00 p.m.	Welcome, Introductions, and Pre-Meeting Info	Allison Brown / All
1:20 p.m.	UDAWG Chartering: Purpose and Role	Allison Brown / Heather Catron
1:40 p.m.	Architectural Context, Structure Massing, and Discussion	Michael Fitzpatrick
2:40 p.m.	"Character of Portland" Homework Assignment	Michael Fitzpatrick
2:55 p.m.	Next Steps and Closing Remarks	Heather Catron Allison Brown



Urban Design and Aesthetics Working Group Mtg #1

*Attendees join meeting via
WebEx link in calendar invite*

Department of Community Services
Transportation Division

September 29, 2020

Meeting Protocols

Using WebEx participation features

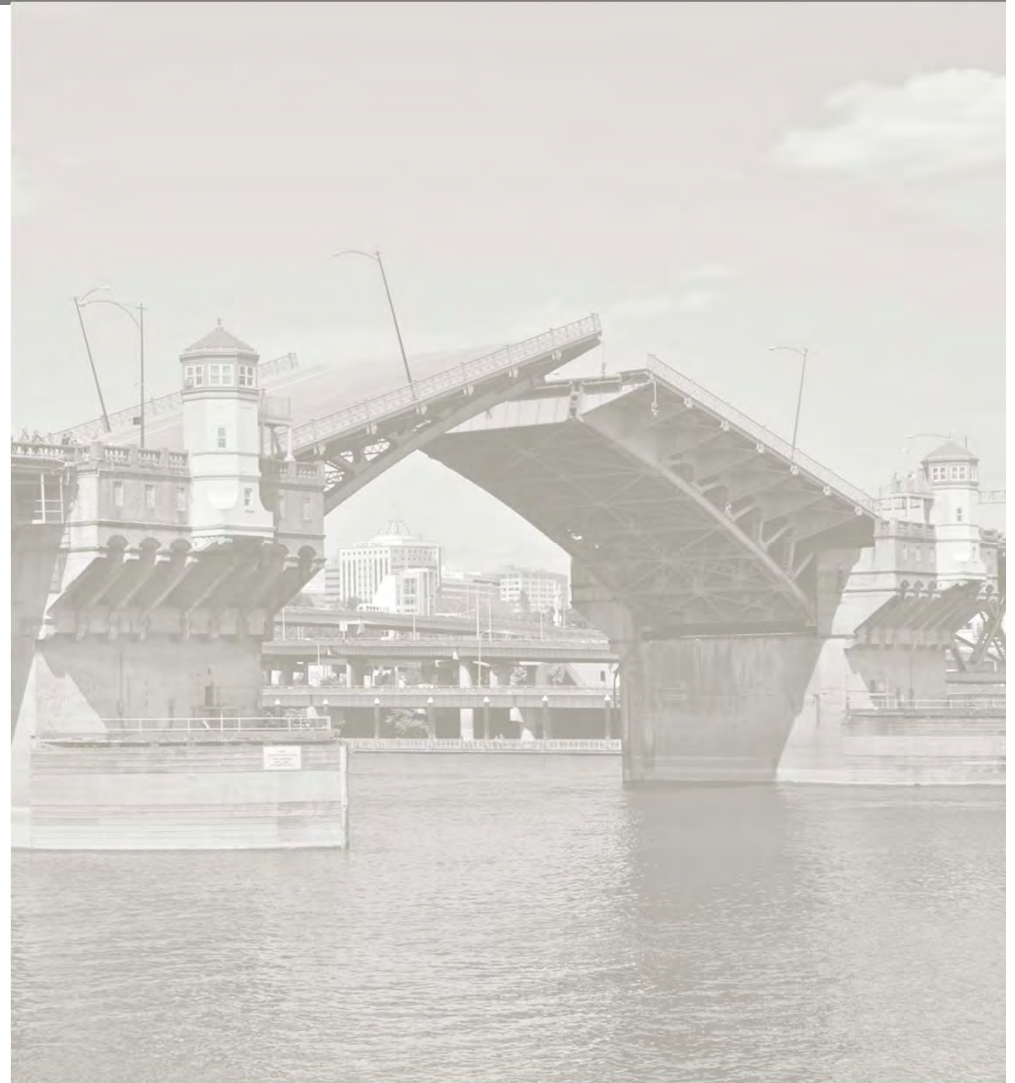


*For WebEx tech support call or email Katy Segura:
(503) 423-3709
Katy.Segura@hdrinc.com*



Agenda

1. Welcome, Introductions, and Pre-Meeting Info
2. UDAWG Chartering: Purpose and Role
3. Architectural Context, Structure Massing, and Discussion
4. “Character of Portland” Homework Assignment
5. Next Steps and Closing Remarks



Pre-meeting Information Packet



Content

- **PDF #1 “1_EQRB Pre-UDAWG Mtg 01_Prep Materials”**
 - Draft UDAWG Charter
 - UDAWG Project Team Bios
 - EQRB Type Selection Process Chart
 - EQRB Purpose and Need Statement
 - EQRB Long-span Alternative Graphic
- **PDF #2: “2_EQRB Pre-UDAWG Mtg 01_Project Background and Virtual Walking Tour”**
 - EQRB Background slides
 - EQRB Virtual Walking Tour slides
- **PDF #3: “3_EQRB UDAWG Mtg 01_Agenda and Presentation”**
 - UDAWG Meeting #1 Agenda
 - UDAWG Draft Meeting #1 Presentation



Urban Design & Aesthetics Working Group



Members

DESIGN COMMUNITY:

- *Parks, Randy Gragg, Executive Director, Portland Parks Foundation*
- *Community Arts, Bill Will, Public Works Artist*
- *Urban Design and Architecture, Paddy Tillett, Principal, ZGF*
- *Art & Design, Chris Herring, Artistic Director, Portland Winter Lights Festival*
- *Development, Megan Crosby, Urban Development + Partners*
- *Businesses, Ian Williams, Deadstock Coffee*
- *River Access, Priscilla Macy, Oregon Outdoor Coalition*
- *Transportation Equity, Izzy Armenta, Oregon Walks*
- *Community Events, Dave Todd, Portland Rose Festival*
- *Cultural, Brian Kimura, Japanese American Museum of Oregon*

AGENCY COMMUNITY:

- *City of Portland*
 - *Patrick Sweeney, Capital Project Manager, PBOT*
 - *Lora Lillard, AICP, Senior Planner - Urban Design, BPS*
 - *Hillary Adams, City Planner, BDS*
 - *Tate White, AICP, Senior Planner, PPR*
- *Justin Douglas, Manager - Governance, Learning & Outcomes, Prosper Portland*
- *Bob Hastings, Agency Architect - TriMet*
- *Magnus Bernhardt, Landscape Architect, ODOT Region 1*

PROJECT TEAM:

- *Megan Neill, MultCo, Project Manager*
- *Ian Cannon, MultCo, Transportation Director*
- *Mike Pullen, MultCo, Public Involvement*
- *Heather Catron, HDR, Consultant PM*
- *Allison Brown, JLA, Facilitator*
- *Steve Drahota, HDR, Technical Lead*
- *Cassie Davis, HDR, Public Involvement Lead*
- *Michael Fitzpatrick, HDR, Bridge Architect Lead*
- *Jeff Heilman, Parametrix, Environmental Lead*
- *Carol Mayer-Reed, Mayer/Reed Architecture, Principal*
- *Jeramie Shane, Mayer/Reed Architecture, Landscape Architect*
- *Josh Carlson, Mayer/Reed Architecture, Landscape Architect*
- *Anne Monnier, KPFF, Principal*



Urban Design & Aesthetics Working Group



UDAWG Purpose and Outcomes

Purpose:

The purpose of the UDAWG is to serve as a technical resource body to the CTF for urban design and aesthetics by:

- Providing informed insights and opinions on the visual features for each type selection option
- Recommending measures to enhance aesthetic opportunities or mitigate potential visual impacts
- Representing urban design and aesthetic interests
- Reflecting the character of Portland by suggesting place-making opportunities

Outcomes:

The outcomes for the UDAWG group are to:

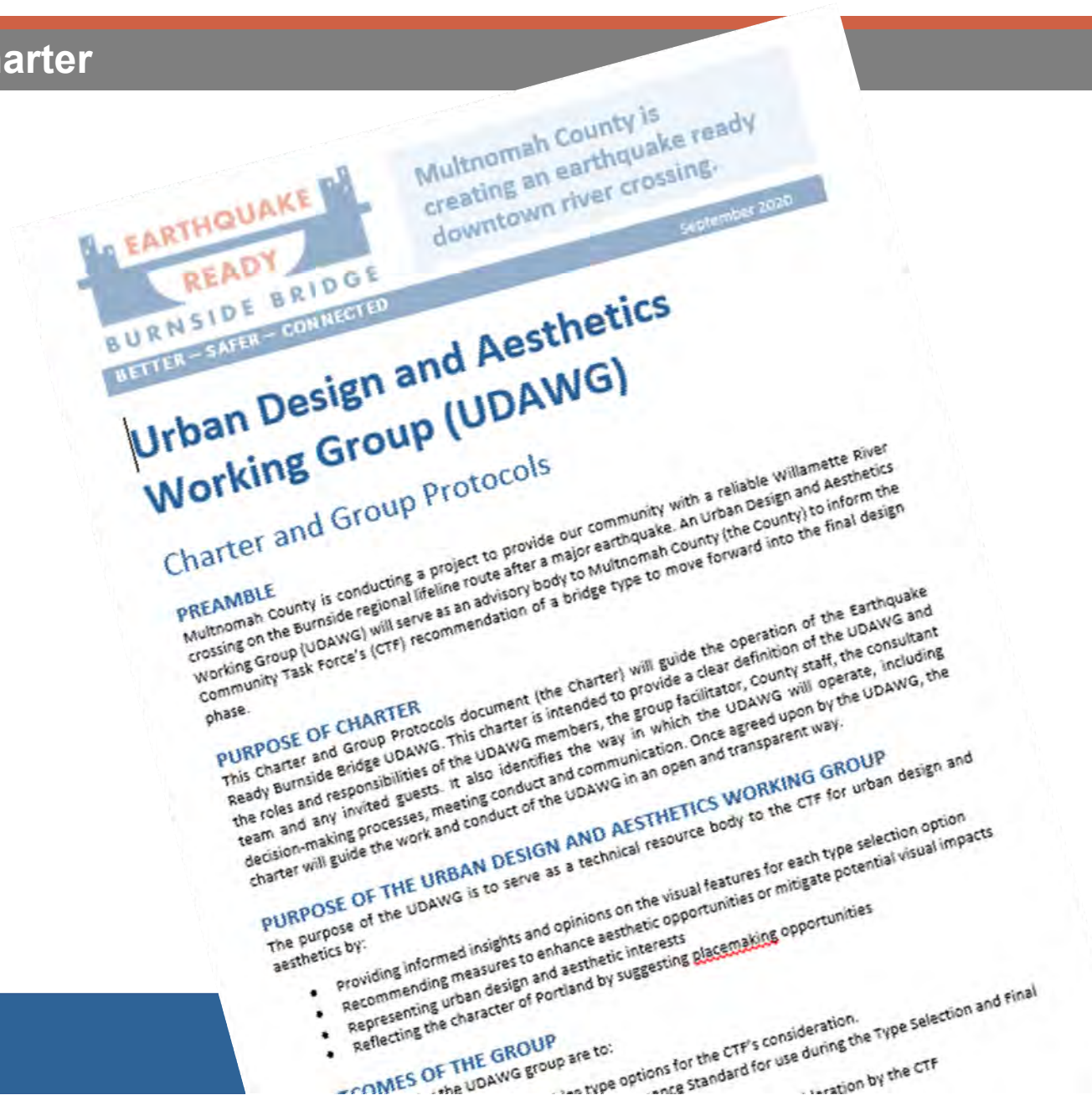
- Inform a set of feasible bridge type options for the CTF's consideration
- Inform a project-specific Visual Performance Standard for use during the Type Selection and Final Design phases
- Recommend visual and aesthetic evaluation criteria for consideration by the CTF



Urban Design & Aesthetics Working Group



UDAWG Charter



Urban Design & Aesthetics Working Group



UDAWG Charter

Acknowledge by raise of hand or via the chat function.

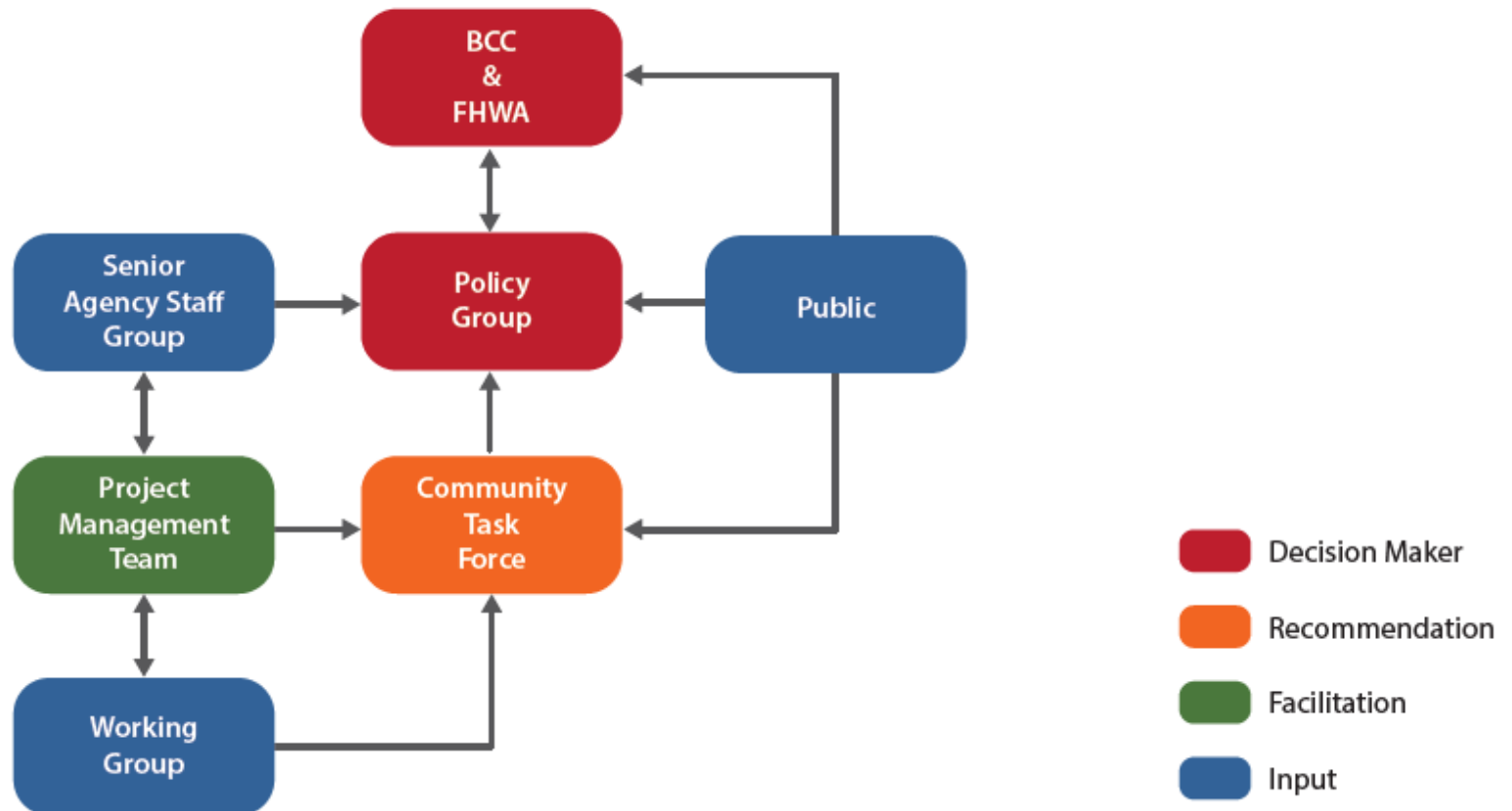
UDAWG Member	Signature
Randy <u>Gragg</u> , Portland Parks Foundation	
Bill Will, Public Works Artist	
Paddy <u>Tillett</u> , ZGF	
Chris Herring, Portland Winter Lights Festival	
Megan Crosby, Urban Development + Partners	
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Bob Hastings, TriMet	
Magnus Bernhardt, ODOT	



Bridge Type Selection Phase

Process

Decision Making Structure



BCC = Board of County Commissioners
FHWA = Federal Highway Administration

Bridge Type Selection Phase



Working Groups to support the CTF

Urban Design + Aesthetics

- Aesthetic / Urban Design insights per option
- Recommended Visual Design Guidelines

Structural / Seismic / Geotechnical

- Technical bridge design differentiators
- Seismic performance findings

Constructability

- Construction methods and durations
- Range of potential impacts

Cost Risk Analysis

- Refined project costs (per option)
- Key cost risks and opportunities

Natural Resources

- Impacts and mitigation for natural resources

Historic & Cultural Resources

- Impacts and mitigation for historic and cultural resources

Permitting

- Permitting influences, challenges, and opportunities

Diversity Equity & Inclusion

- Bridge option impacts to DEI principles

Information to CTF:

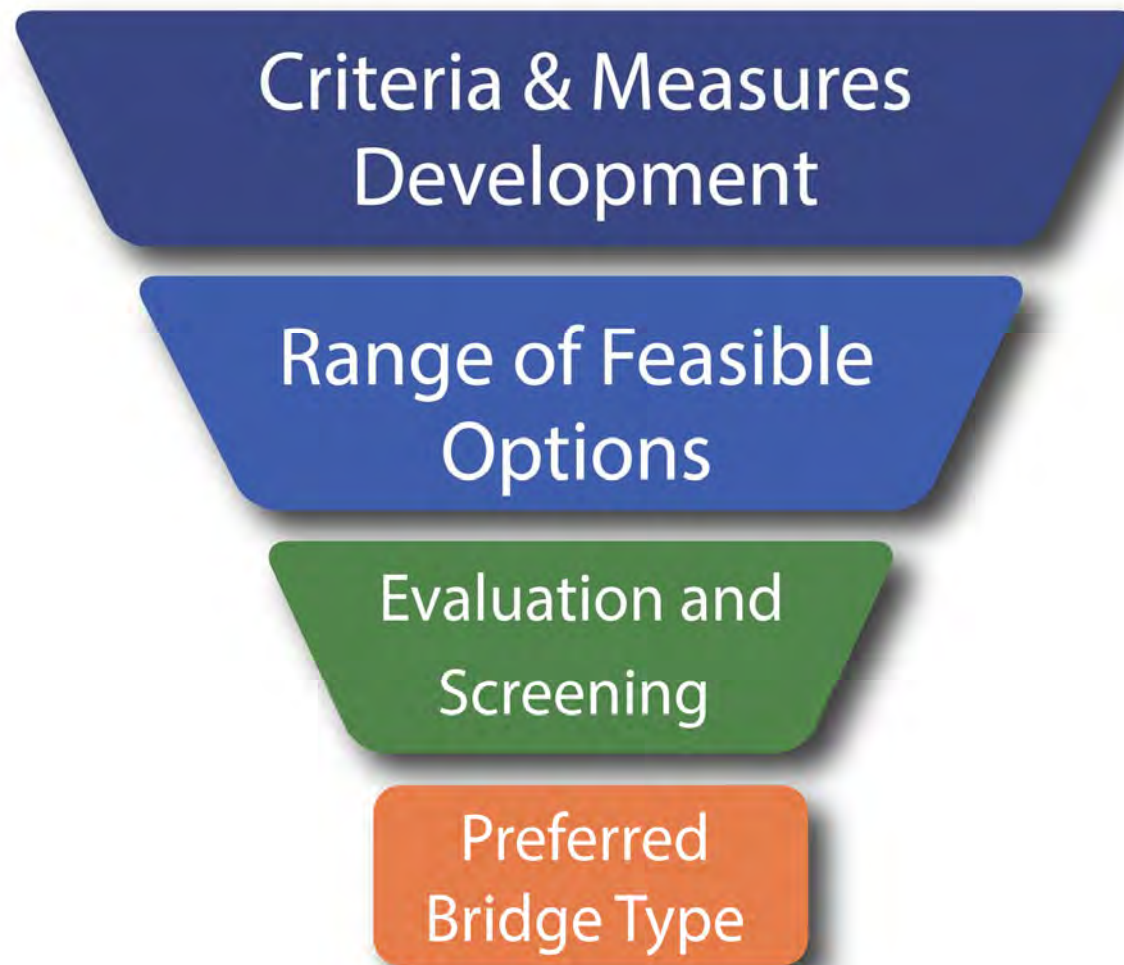
- Type Selection Evaluation Criteria and Measures
- Technical Data to support the evaluation process



**CTF members invited to attend working group meetings as desired*

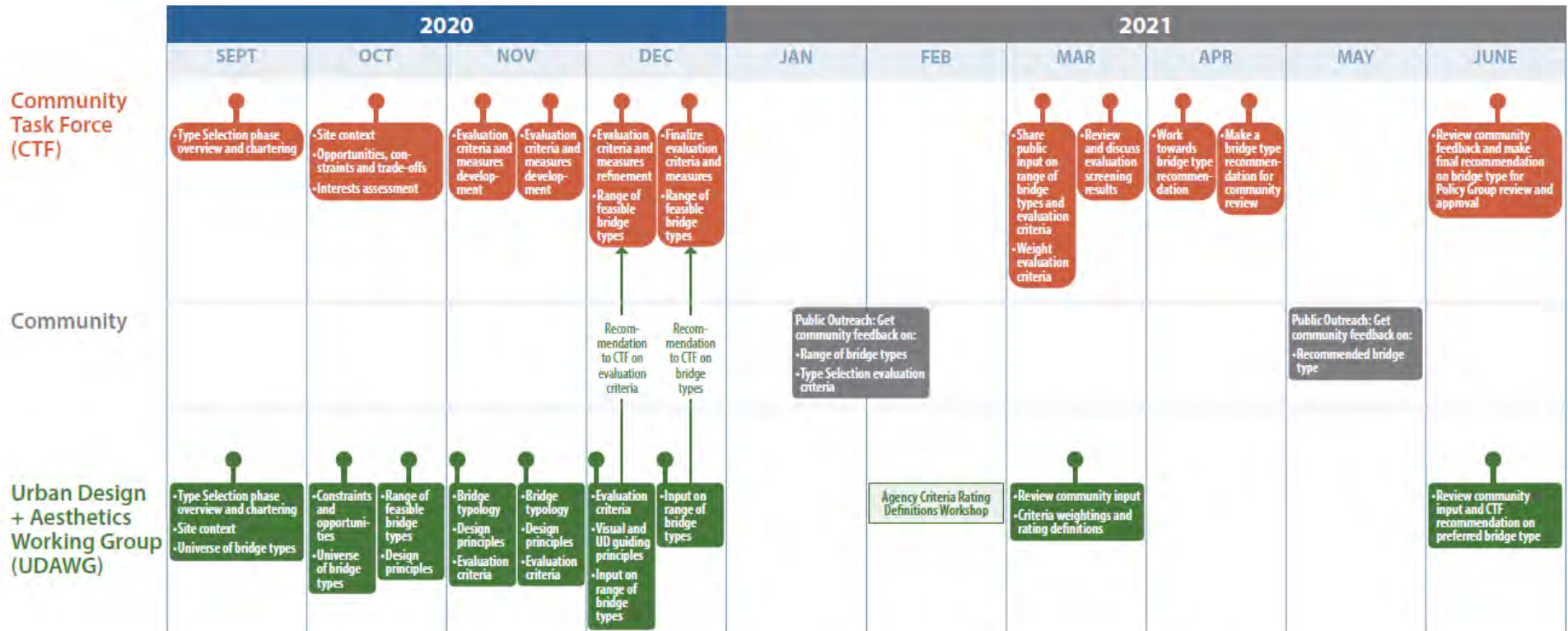
Bridge Type Selection Phase

Process



Bridge Type Selection Phase

Community Task Force / UDAWG Workflow



Architectural Context



Discussion – Key initial questions to consider during the presentation

1. Are there words or concepts that capture the spirit of Portland that the new bridge should evoke?
2. What story does the bridge tell and who are the characters?

Important considerations to help answer the questions:

- Bridge Architecture scale jumps from macro to micro and back to macro
- Urban realm changes deck and street level
- Important factors:
 - Scale
 - Transparency
 - Massing
 - Shade/shadow
 - Travel speed, distances, time of day/year
 - Material and texture
 - Experience – east to west, west to east, floating, around and under



Project Context

First Burnside Bridge – circa 1894

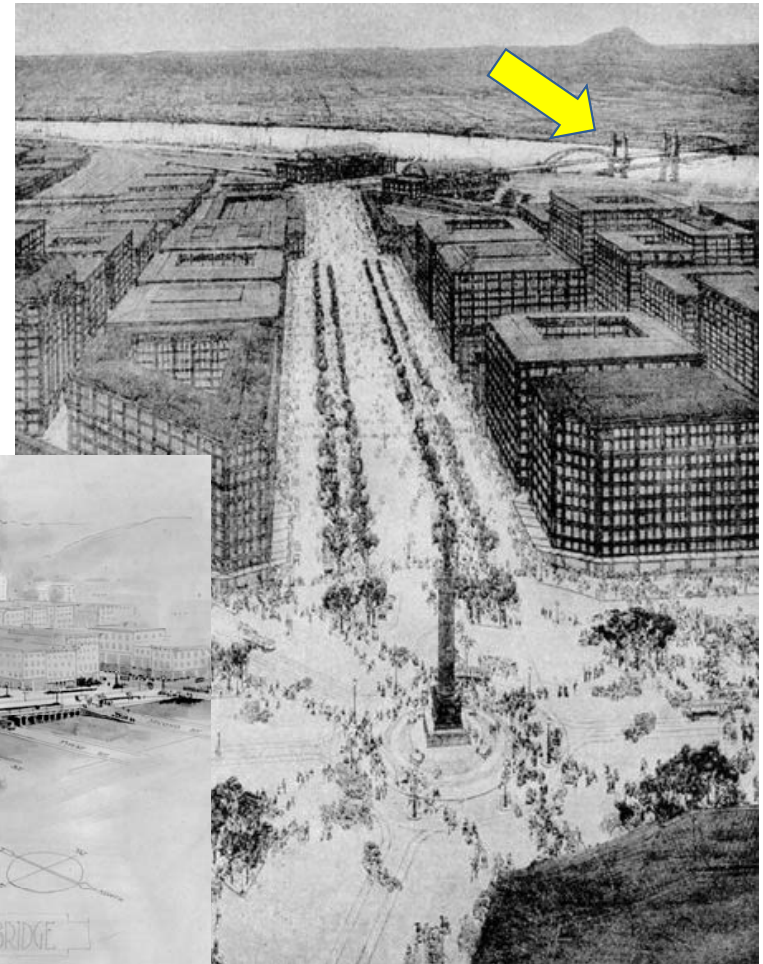


Project Context

Bridge Site Plan – Prior Visions

Edward Bennett's 1912 city plan called for a widened North Park Blocks, looking north from the intersection of Burnside Street.

Source: “How Portland almost became Paris on the Willamette: Ambitious 1912 plan envisioned Europe-inspired city with 2 million population” - Douglas Perry | The Oregonian/OregonLive Posted Jul 15, 2020



Project Context

Bridge Site



Project Context

Bridge Site Plan – Virtual Walking Tour Handout

West (Downtown) side



East side

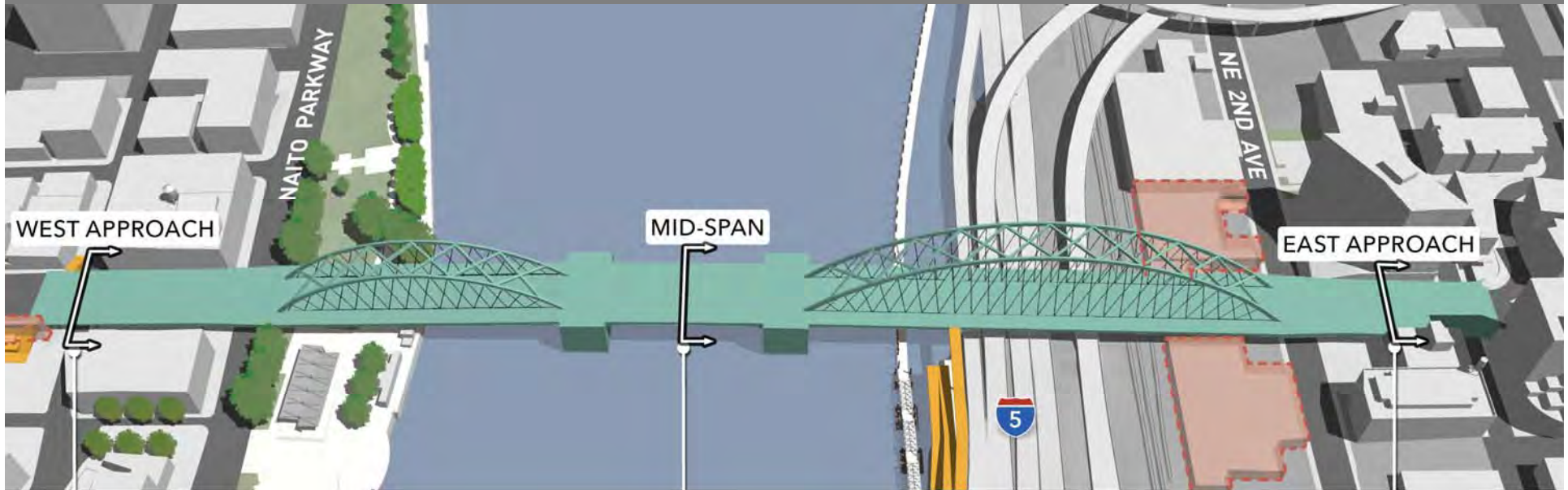




Project Context - Roadway Sections



Additional deck width over the river provides a safer facility for bicyclists, pedestrians and other users



LANE CONFIGURATION AT WEST APPROACH



LANE CONFIGURATION AT MID-SPAN



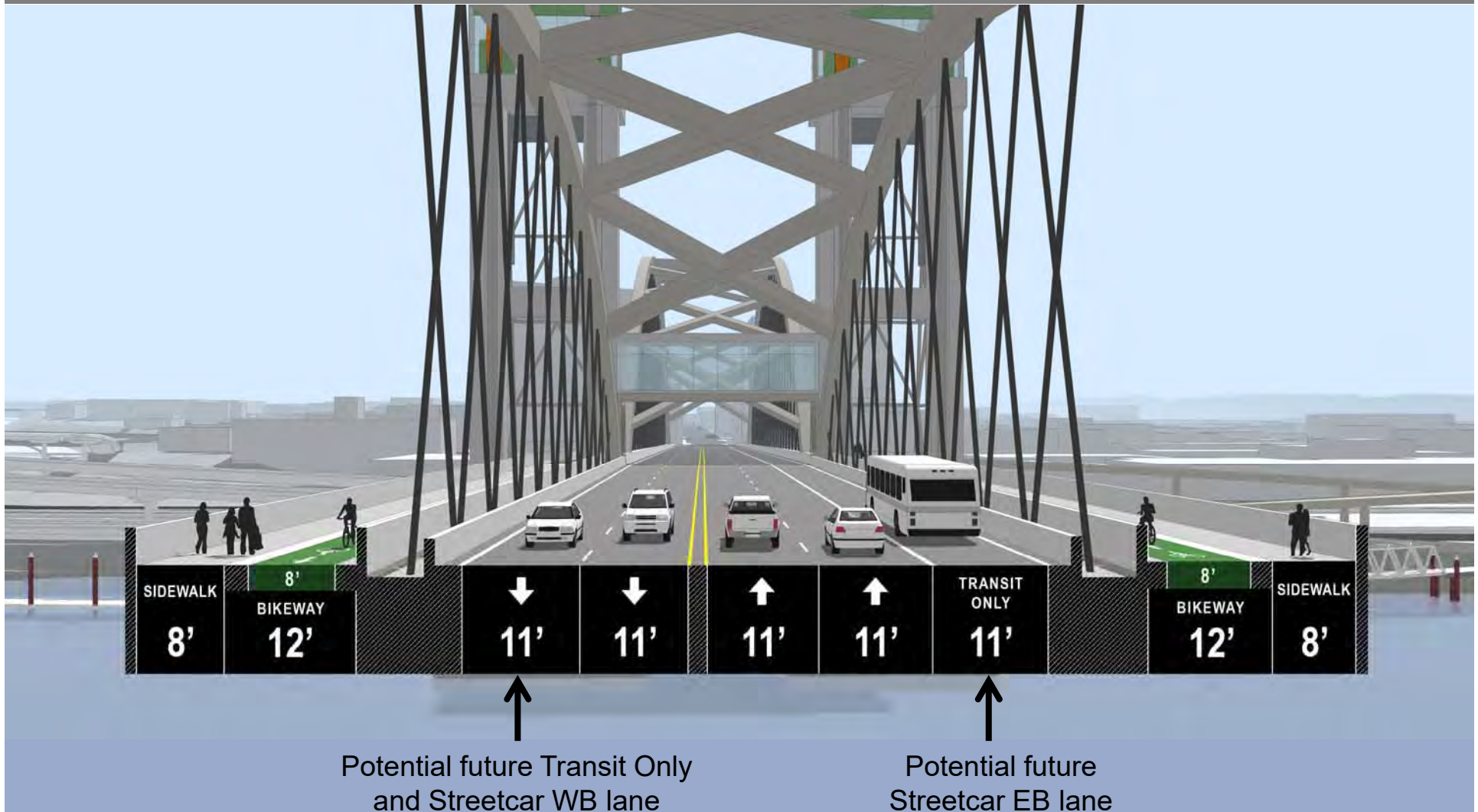
LANE CONFIGURATION AT EAST APPROACH



Project Context: Mid-span Roadway Section



Additional deck width over the river provides a safer facility for bicyclists, pedestrians and other users



Architectural Context

Willamette River Bridges



Architectural Context

Willamette River Bridges



① Fremont Bridge



② Broadway Bridge



③ Steel Bridge



④ Burnside Bridge



⑤ Morrison Bridge



⑥ Hawthorne Bridge



⑦ Marquam Bridge



⑧ Tilikum Crossing

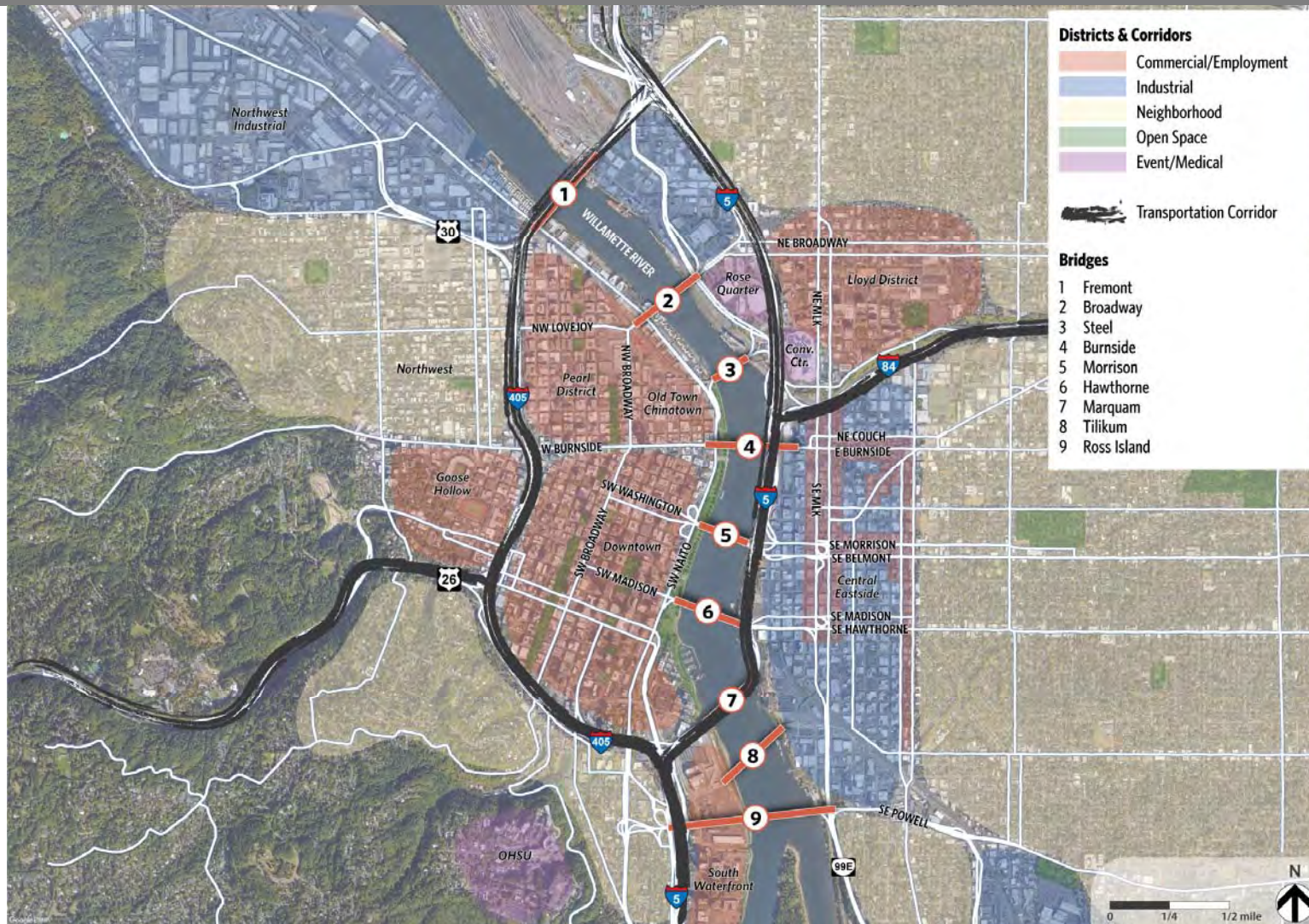


⑨ Ross Island Bridge



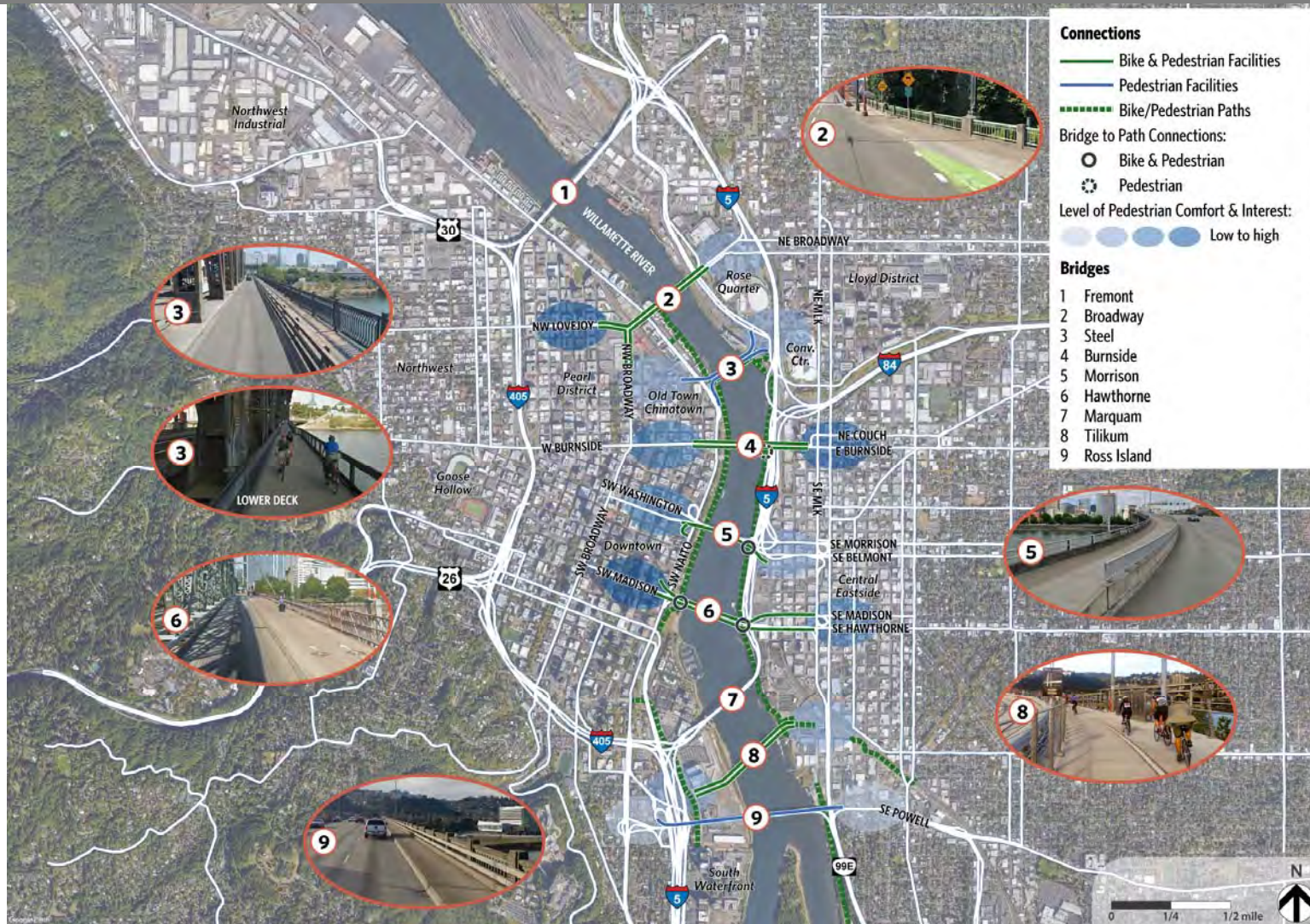
Architectural Context

Willamette River Bridges



Architectural Context

Existing Pedestrian Connectivity



Architectural Context



Findings Discussion

- It is uncommon for a city to look at their bridges holistically
- This will be the third bridge at this site
- Two types of bridges – high highway (no pedestrian access) and low neighborhood (pedestrian access)
- Main bridge is contained in the river bank to bank zone, Burnside will break the edge
- No consistency in type, material, or expression
- Burnside Road/Street extends from Skyline Blvd to US 26 – many different conditions



Replacement, Movable: Long Span

Bridge Type Examples

BRIDGE TYPE OPTION: Tied Arch examples



Hastings Bridge, Minnesota



Torikai Ohas Bridge, Japan



Siuslaw River Bridge, Oregon



Tacony-Palmyra Bridge, Pennsylvania



Gateway Bridge, Michigan

BRIDGE TYPE OPTION: Cable Stayed examples



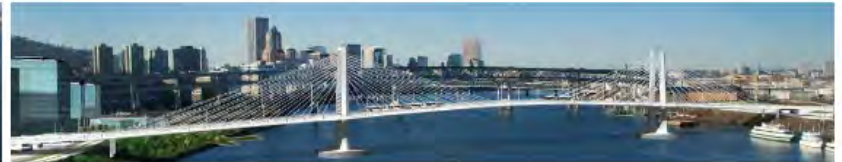
Indian River Inlet Bridge, Delaware



Chongqing Expressway Bridge



Copper River Bridge



Tilikum Crossing Bridge, Oregon

BRIDGE TYPE OPTION: Through Truss examples



Main Street Bridge, Florida



Triboro (Harlem River) Bridge



Tower Bridge, CA



Broadway Bridge



Hawthorn Bridge

MOVABLE SPAN: Bascule examples



South Park Bridge



Harbor Bridge, Spain



New Johnson St. Bridge, Canada



Woodrow Wilson Bridge

MOVABLE SPAN: Vertical Lift examples



Teregganu Bridge



Fore River Bridge



Pont Jacques Chaban - Delmas



Manchester Millenium Bridge, England

Structure Massing

Example of Some Symmetrical Structural Configurations



SA 1 Arch with Bascule



ST 1 Truss with Bascule



SC 1 Cable-stayed with Bascule



SA 2 Arch with Girder Lift



ST 2 Truss with Girder Lift



SC 2 Cable-stayed with Girder Lift



SA 3 Arch with Arch Lift



ST 3 Truss with Truss Lift



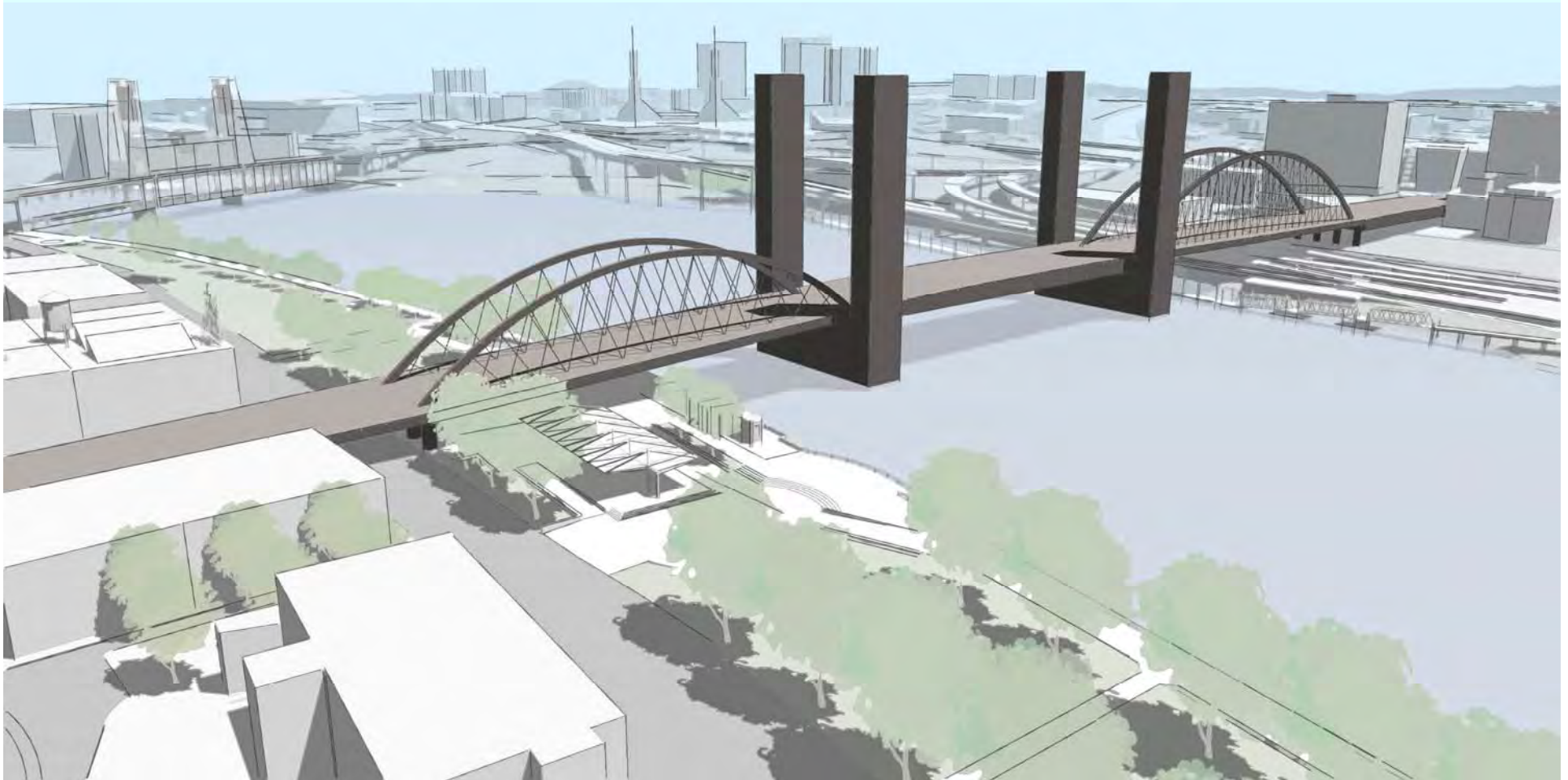
Structure Massing

SA 1 Arch Bridge with Bascule Span



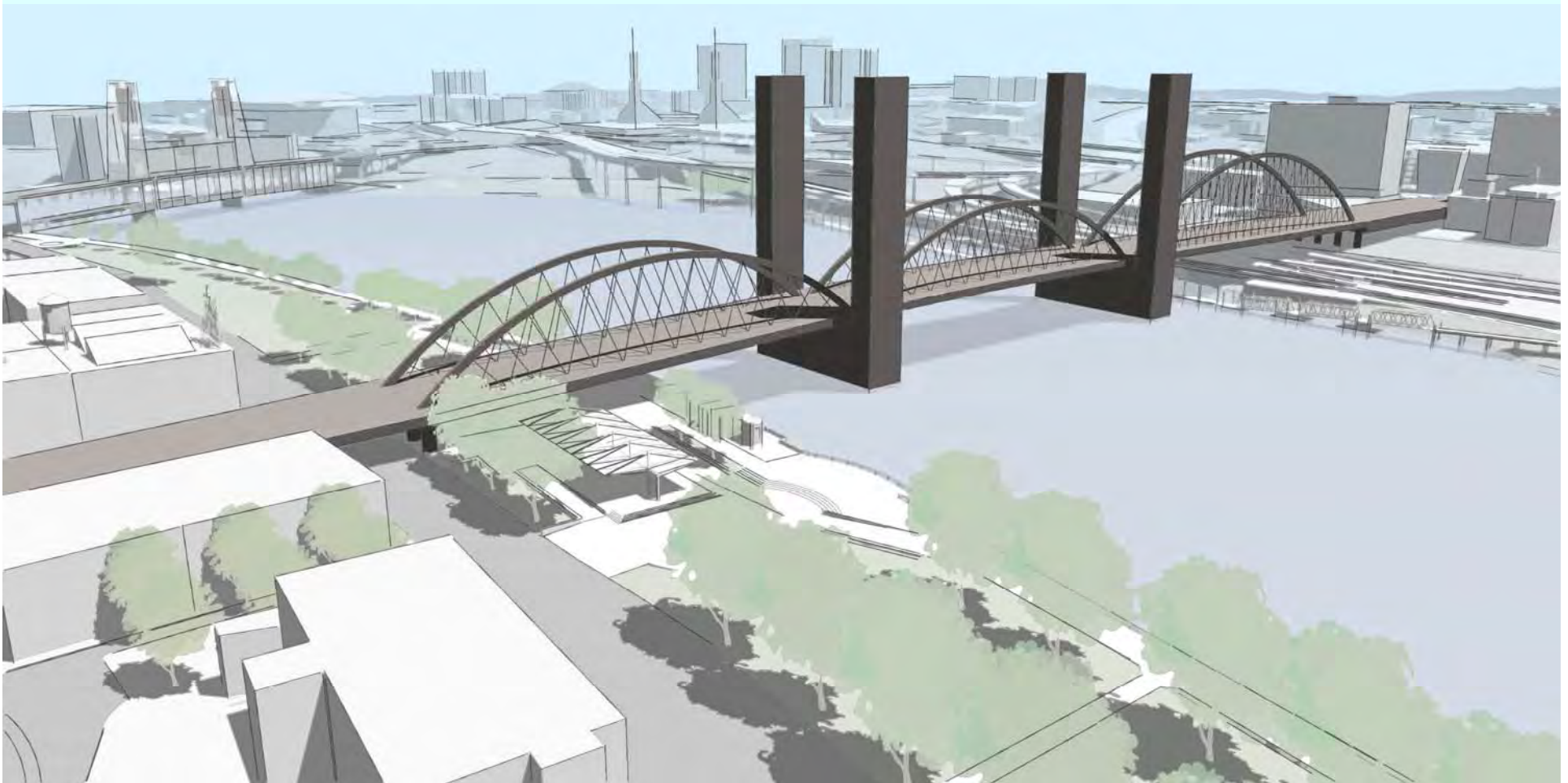
Structure Massing

SA 2 Arch Bridge with Girder Lift Span



Structure Massing

SA 3 Arch Bridge with Arch Lift Span



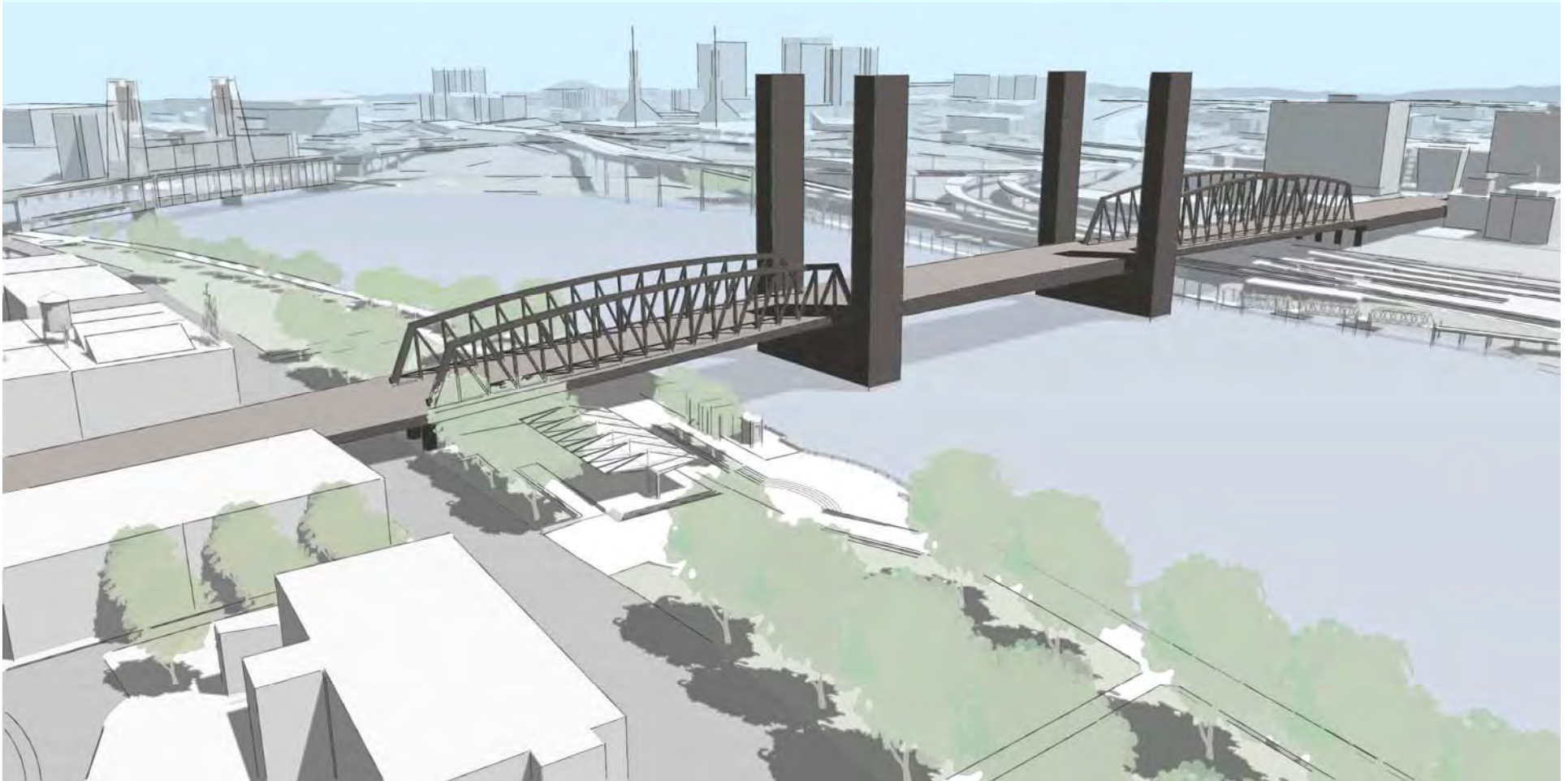
Structure Massing

ST 1 Through Truss Bridge with Bascule Span



Structure Massing

ST 2 Through Truss Bridge with Girder Lift Span



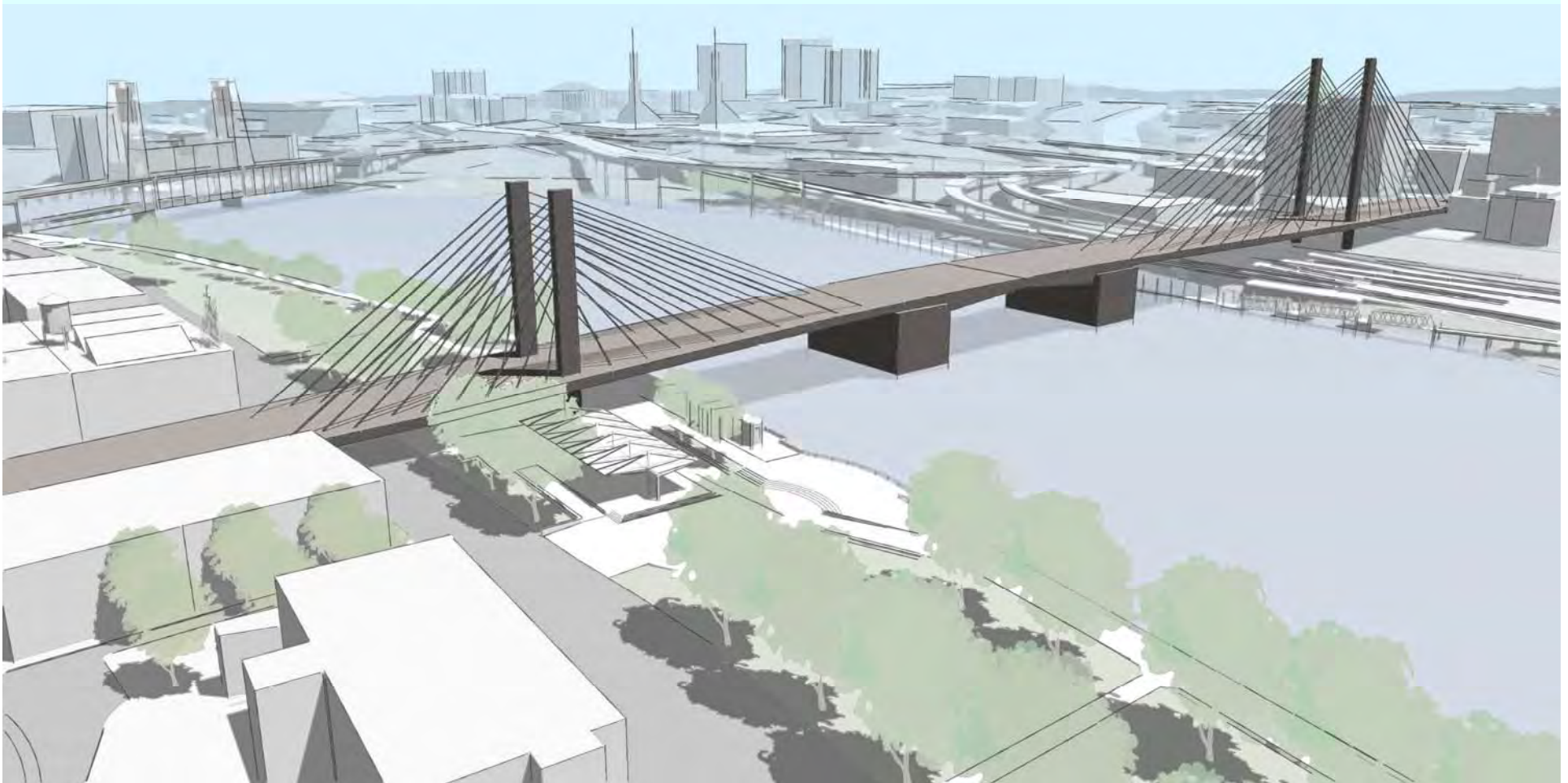
Structure Massing

ST 3 Through Truss Bridge with Truss Lift Span



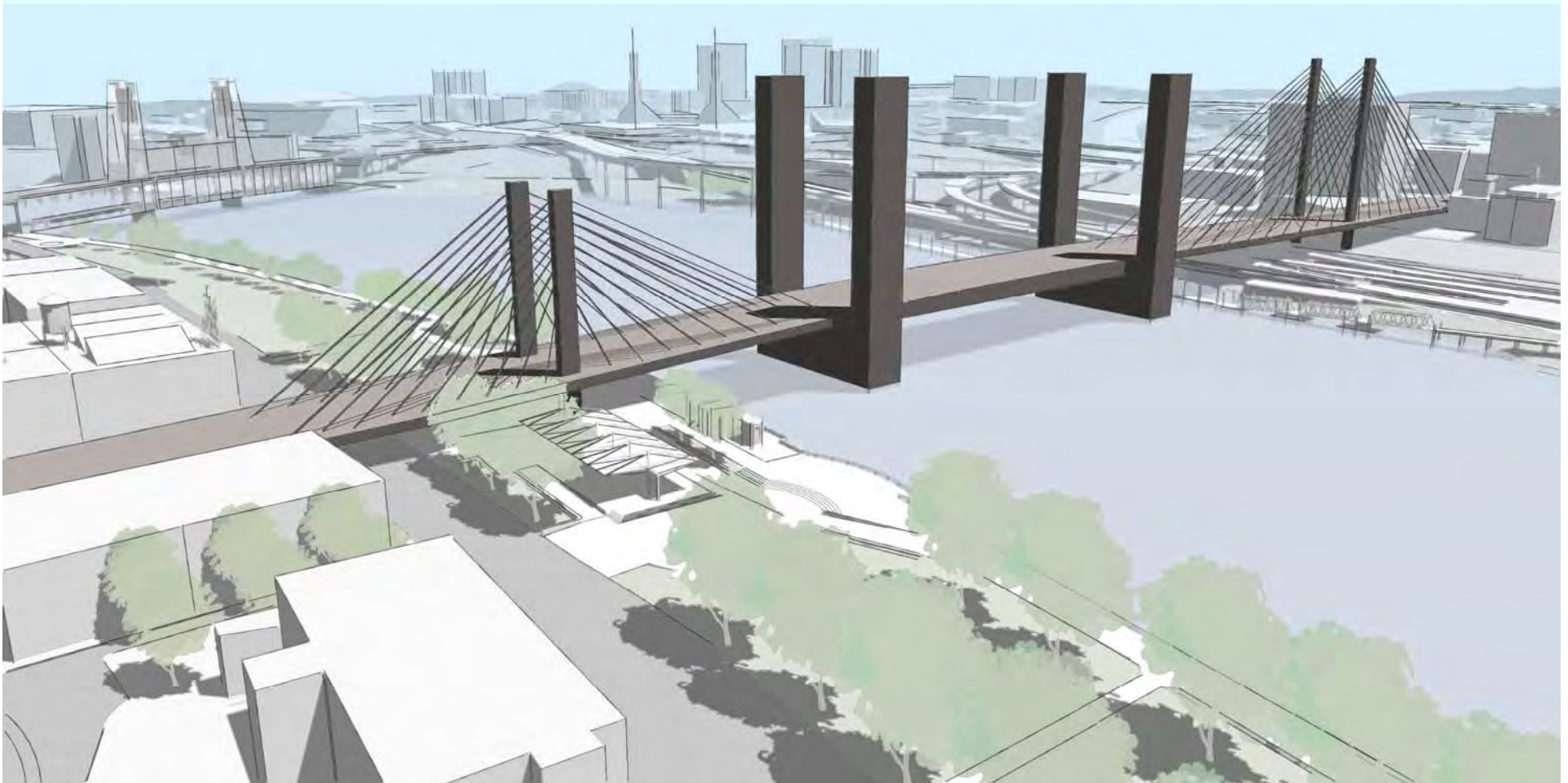
Structure Massing

SC 1 Cable Stay Bridge with Bascule Span



Structure Massing

SC 2 Cable Stay Bridge with Girder Lift Span



Structure Massing

Example of Some Asymmetrical Structural Configurations



Structure Massing

AA 1 Arch with Bascule



Structure Massing

AA 2 Arch with Vertical Lift



Structure Massing

AT 1 Truss with Bascule



Structure Massing

AT 2 Truss with Vertical Lift



Structure Massing

AC 1 Cable-stayed with Bascule



Structure Massing

AC 2 Cable-stayed with Vertical Lift



Structure Massing

Example of Some Symmetrical Structural Configurations



SA 1 Arch with Bascule



ST 1 Truss with Bascule



SC 1 Cable-stayed with Bascule



SA 2 Arch with Girder Lift



ST 2 Truss with Girder Lift



SC 2 Cable-stayed with Girder Lift



SA 3 Arch with Arch Lift



ST 3 Truss with Truss Lift



Structure Massing

Example of Some Asymmetrical Structural Configurations



Urban Design and Aesthetics

Prior Urban Design Working Group – Expressed Interests

- Heart of the City
- Community Connectivity
- Future Adaptability
- Activate Spaces
- Access
- User Experience
- Post-EQ Relevance
- Recognize Historical Value
- Link Historic Old Town and Modern East Bridgehead



Architectural Context



Discussion – Key initial questions (for discussion)

1. Are there words or concepts that capture the spirit of Portland that the new bridge should evoke?
2. What story does the bridge tell and who are the characters?

Important considerations to help answer the questions:

- Bridge Architecture scale jumps from macro to micro and back to macro
- Urban realm changes deck and street level
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 - Transparency
 - Massing
 - Shade/shadow
 - Travel speed, distances, time of day/year
 - Material and texture
 - Experience – east to west, west to east, floating, around and under



“Character of Portland” Assignment



Yes, we are giving you homework!

... a Site visit.

Instructions. Visit the site at different times of the day, and observe the bridge user experience(s):

- From the active spaces below bridge and from on the bridge deck surface
- By moving (1) from east to west, and (2) from west to east
- By walking, bicycling, riding in a vehicle, floating, and viewing from nearby buildings, parks, esplanades, or other facilities.

Questions. Questions to respond to with the intention of landing on design goals:

- What experiences would you like to replicate or not?
- What is the “spirit of the place”?
- What should the bridge “say” about Portland?

Submittals. Email notes and photographs to Katy Segura (Katy.Segura@hdrinc.com) by **10/11/20**. We will compile your findings and distribute everyone’s responses prior to UDAWG Mtg #2.



Existing Lighting



① Fremont Bridge



② Broadway Bridge



③ Steel Bridge



④ Burnside Bridge



⑤ Morrison Bridge



⑥ Hawthorne Bridge



⑦ Marquam Bridge



⑧ Tilikum Crossing

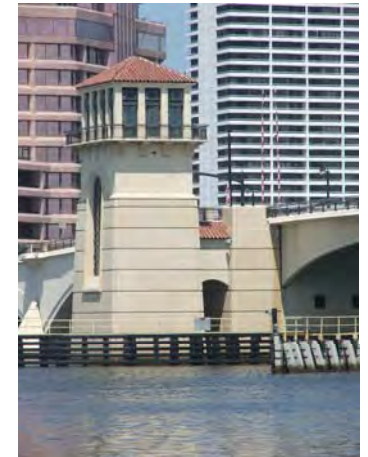


⑨ Ross Island Bridge



Operator Houses

Examples



Overlooks

Examples



Next Steps



Proposed Meeting Sequence

Proposed Meeting Dates and Durations:

- **Mtg #2 (2 hrs) – Wed 10/14/20**
 - Key Topics: “Character of Portland” discussion; Technical Opportunities and Constraints; Universe of bridge types
- **Mtg #3 (4 hrs) – Wed 10/28/20**
 - Key Topics: Bridge type options; Typology (i.e., how tower shapes, cable arrangements, various truss and arch forms to be designed during Final Design phase) influence the draft Visual Design Guidelines (to be developed now)
- Mtg #4 (2 hrs) – Wed 11/4/20
- Mtg #5 (2 hrs) – Wed 11/18/20
- Mtg #6 (2 hrs) – Wed 12/2/20
- Mtg #7 (2 hrs) – Wed 12/16/20
- Mtg #8 (2 hrs) – Wed 3/10/21
- Mtg #9 (2 hrs) – Wed 6/2/21



Questions

Thank you!

