EARTHQUAKE READY BURNSIDE BRIDGE

Community Task Force Meeting #21

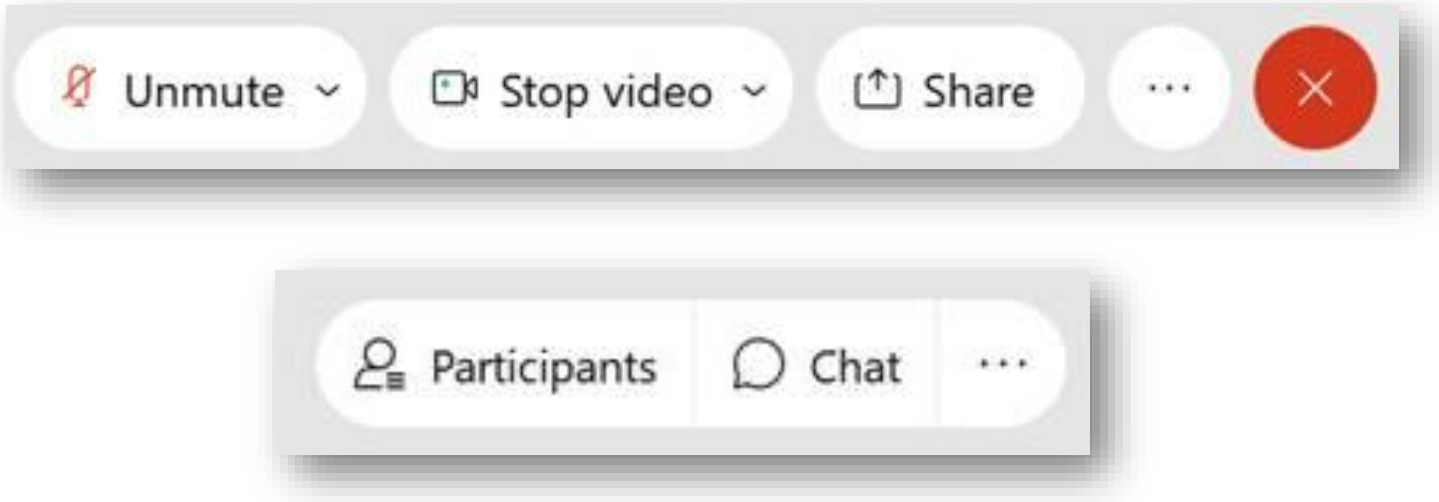
Members join meeting via WebEx link in calendar invite

NOTE: Meeting is live to the public and recorded

Department of Community Services
Transportation Division
December 7, 2020

Meeting Protocols

Using WebEx participation features



For WebEx tech support call or email Liz Stoppelmann:
(916) 200-5123
Liz.Stoppelmann@hdrinc.com

Agenda

1. Welcome, Introductions & Housekeeping
2. Public Comment
3. Project Update
4. Bridge Types Update
5. Criteria Development
6. Open Discussion
7. Next Steps

Introductions and Roll Call

Community Task Force

- **Amy Rathfelder**, Portland Business Alliance
- **Art Graves**, Multnomah County Bike and Pedestrian Citizen Advisory Committee
- **Dennis Corwin**, Portland Spirit
- **Ed Wortman**, Community Member
- **Frederick Cooper**, Laurelhurst Neighborhood Emergency Team and Laurelhurst Neighborhood Association
- **Gabe Rahe**, Burnside Skate Park
- **Howie Bierbaum**, Portland Saturday Market
- **Jackie Tate**, Community Member
- **Jane Gordon**, University of Oregon
- **Jennifer Stein**, Central City Concern
- **Marie Dodds**, AAA of Oregon
- **Neil Jensen**, Gresham Area Chamber of Commerce
- **Paul Leitman**, Oregon Walks
- **Peter Englander**, Old Town Community Association
- **Peter Finley Fry**, Central Eastside Industrial Council
- **Sharon Wood Wortman**, Community Member
- **Stella Funk Butler**, Coalition of Gresham Neighborhood Associations
- **Susan Lindsay**, Buckman Community Association
- **Tesia Eisenberg**, Mercy Corps
- **William Burgel**, Portland Freight Advisory Committee

Public Comment

Bridge Type Selection Phase

EARTHQUAKE READY BURNSIDE BRIDGE

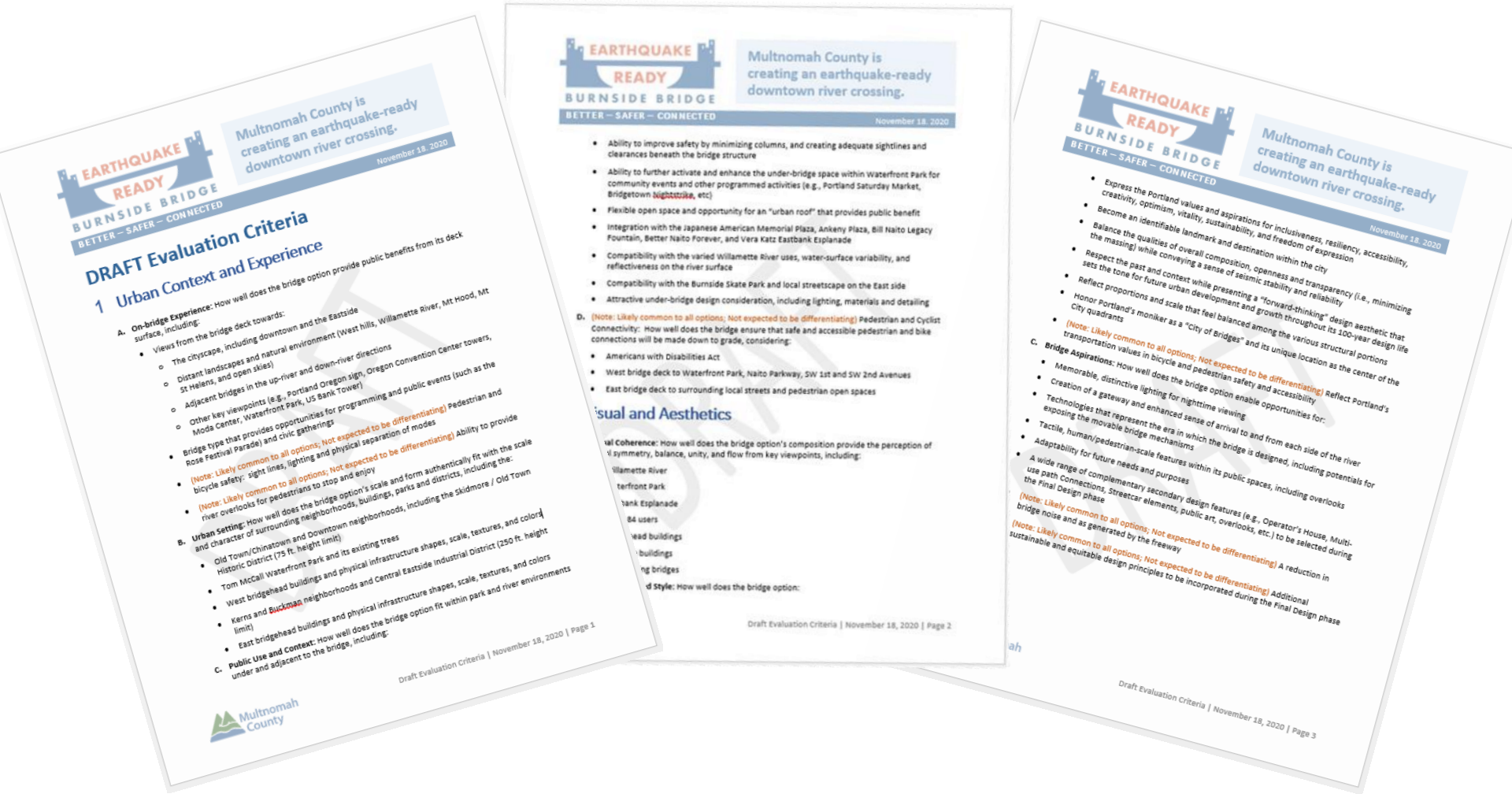
Working Groups to support the CTF

Urban Design & Aesthetics	• Aesthetic / Urban Design insights per bridge type • Recommendation on type selection evaluation criteria	Dec 16, 2020
Bridge & Seismic	• Technical bridge design differentiators • Seismic performance findings	Dec 2020
Constructability	• Construction methods and durations • Range of potential impacts	Jan 2021
Natural Resources	• Impacts to natural resources	Mar 2021
Diversity, Equity & Inclusion	• Bridge option impacts to DEI principles	Jan 2021
Multi-Modal	• Technical input on the bridge uses, typical sections, and connections to the existing multi- modal networks	Jan 2021
Historic/Cultural Resources	• Impacts to historic and cultural resources	Jan 2021

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

Project Update

Urban Design and Aesthetics Working Group – Evaluation Criteria



EARTHQUAKE READY BURNSIDE BRIDGE
BETTER – SAFER – CONNECTED
Multnomah County is creating an earthquake-ready downtown river crossing.
November 18, 2020

DRAFT Evaluation Criteria

1 Urban Context and Experience

A. On-bridge Experience: How well does the bridge option provide public benefits from its deck surface, including:

- Views from the bridge deck towards:
  - The cityscape, including downtown and the Eastside
  - Distant landscapes and natural environment (West hills, Willamette River, Mt Hood, Mt St Helens, and open skies)
  - Adjacent bridges in the up-river and down-river directions
  - Other key viewpoints (e.g., Portland Oregon sign, Oregon Convention Center towers, Moda Center, Waterfront Park, US Bank Tower)
- Bridge type that provides opportunities for programming and public events (such as the Rose Festival Parade) and civic gatherings
- (Note: Likely common to all options; Not expected to be differentiating) Pedestrian and bicycle safety: sight lines, lighting and physical separation of modes
- (Note: Likely common to all options; Not expected to be differentiating) Ability to provide river overlooks for pedestrians to stop and enjoy

B. Urban Setting: How well does the bridge option's scale and form authentically fit with the scale and character of surrounding neighborhoods, buildings, parks and districts, including the:

- Old Town/Chinatown and Downtown neighborhoods, including the Skidmore / Old Town Historic District (75 ft. height limit)
- Tom McCall Waterfront Park and its existing trees
- West bridgehead buildings and physical infrastructure shapes, scale, textures, and colors
- Kerns and Buckman neighborhoods and Central Eastside Industrial District (250 ft. height limit)
- East bridgehead buildings and physical infrastructure shapes, scale, textures, and colors

C. Public Use and Context: How well does the bridge option fit within park and river environments under and adjacent to the bridge, including:

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Multnomah County

- Ability to improve safety by minimizing columns, and creating adequate sightlines and clearances beneath the bridge structure
- Ability to further activate and enhance the under-bridge space within Waterfront Park for community events and other programmed activities (e.g., Portland Saturday Market, Bridgetown Lightstrike, etc)
- Flexible open space and opportunity for an "urban roof" that provides public benefit
- Integration with the Japanese American Memorial Plaza, Ankeny Plaza, Bill Naito Legacy Fountain, Better Naito Forever, and Vera Katz Eastbank Esplanade
- Compatibility with the varied Willamette River uses, water-surface variability, and reflectiveness on the river surface
- Compatibility with the Burnside Skate Park and local streetscape on the East side
- Attractive under-bridge design consideration, including lighting, materials and detailing

D. (Note: Likely common to all options; Not expected to be differentiating) Pedestrian and Cyclist Connectivity: How well does the bridge ensure that safe and accessible pedestrian and bike connections will be made down to grade, considering:

- Americans with Disabilities Act
- West bridge deck to Waterfront Park, Naito Parkway, SW 1st and SW 2nd Avenues
- East bridge deck to surrounding local streets and pedestrian open spaces

sual and Aesthetics

al Coherence: How well does the bridge option's composition provide the perception of
l symmetry, balance, unity, and flow from key viewpoints, including:

illamette River
terfront Park
ank Esplanade
84 users
ead buildings
buildings
ng bridges

d Style: How well does the bridge option:

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- Express the Portland values and aspirations for inclusiveness, resiliency, accessibility, creativity, optimism, vitality, sustainability, and freedom of expression
- Become an identifiable landmark and destination within the city
- Balance the qualities of overall composition, openness and transparency (i.e., minimizing the massing) while conveying a sense of seismic stability and reliability
- Respect the past and context while presenting a "forward-thinking" design aesthetic that sets the tone for future urban development and growth throughout its 100-year design life
- Reflect proportions and scale that feel balanced among the various structural portions
- Honor Portland's moniker as a "City of Bridges" and its unique location as the center of the City quadrants
- (Note: Likely common to all options; Not expected to be differentiating) Reflect Portland's transportation values in bicycle and pedestrian safety and accessibility

C. Bridge Aspirations: How well does the bridge option enable opportunities for:

- Memorable, distinctive lighting for nighttime viewing
- Creation of a gateway and enhanced sense of arrival to and from each side of the river
- Technologies that represent the era in which the bridge is designed, including potentials for exposing the movable bridge mechanisms
- Tactile, human/pedestrian-scale features within its public spaces, including overlooks
- Adaptability for future needs and purposes
- A wide range of complementary secondary design features (e.g., Operator's House, Multi-use path Connections, Streetcar elements, public art, overlooks, etc.) to be selected during the Final Design phase
- (Note: Likely common to all options; Not expected to be differentiating) A reduction in bridge noise and as generated by the freeway
- (Note: Likely common to all options; Not expected to be differentiating) Additional sustainable and equitable design principles to be incorporated during the Final Design phase

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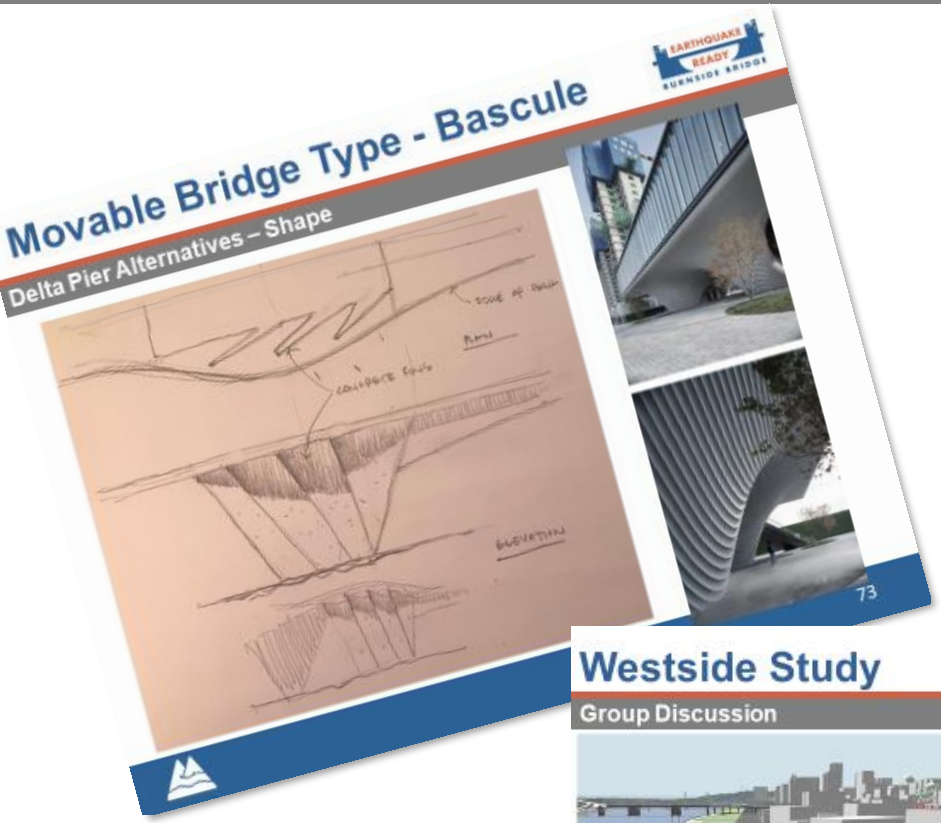
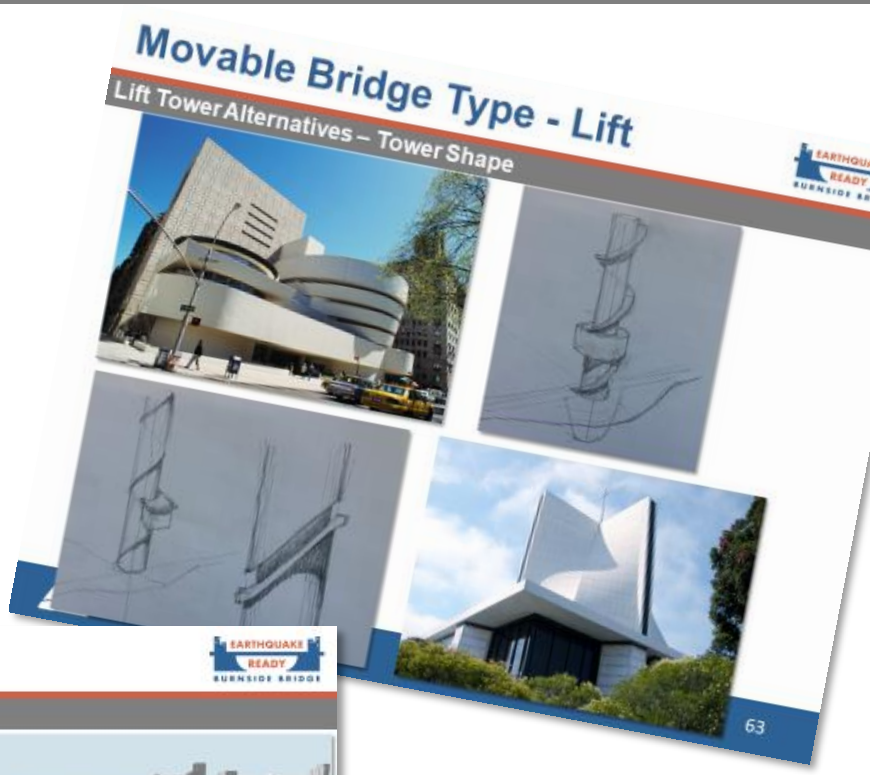
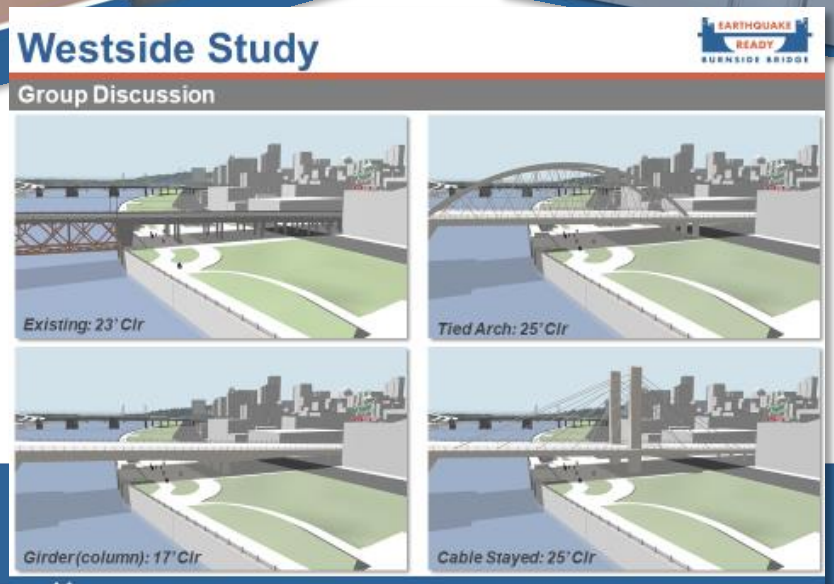
Project Update

Urban Design & Aesthetics Working Group – Design Refinements & Opportunities



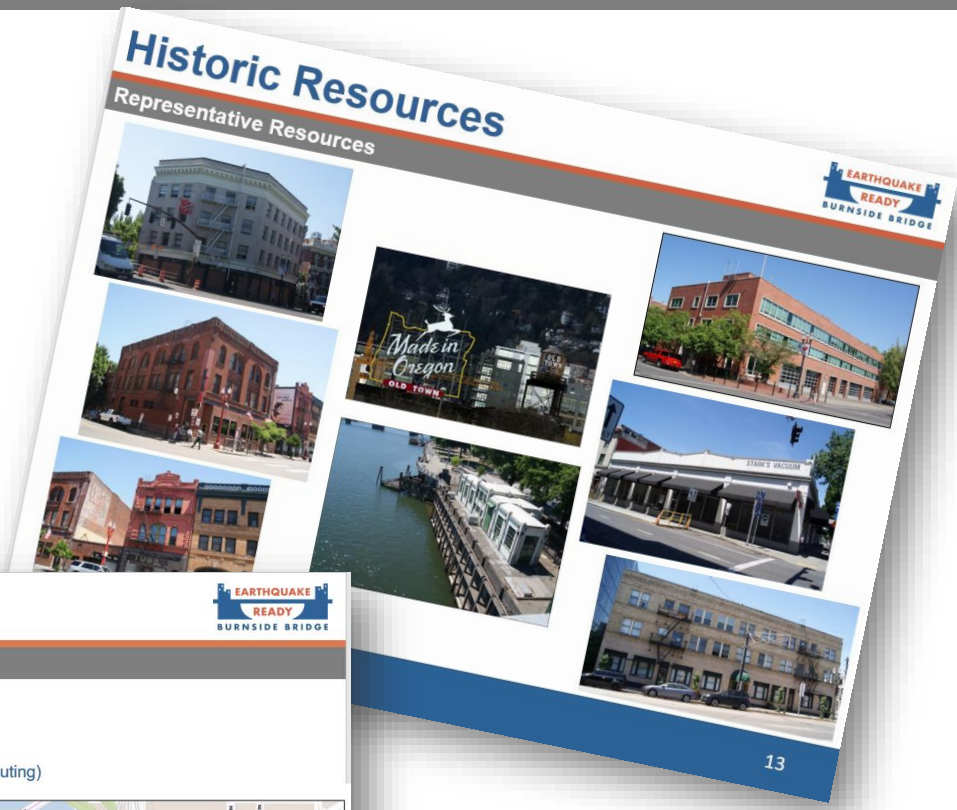




Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Historic & Cultural Resources Consulting Parties Meeting



Historic Resources

EARTHQUAKE READY BURNSIDE BRIDGE

Section 106 Resources and Effects

Districts

- No Adverse Effects on districts
- Construction vibration impact concerns but no adverse effect
- Demolish Saturday Market Administrative building (non-contributing)

Adverse Effects

- Burnside Bridge (all alts)
- Burnside Skatepark (retrofit)

Potential Adverse Effects

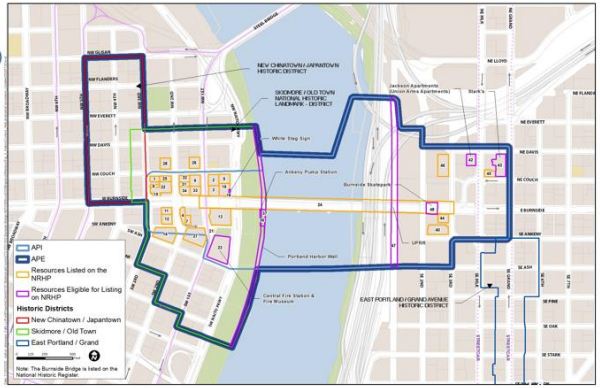
- Buried resources

No Adverse Effects

- Portland Harbor Wall*
- White Stag sign*

No Effect

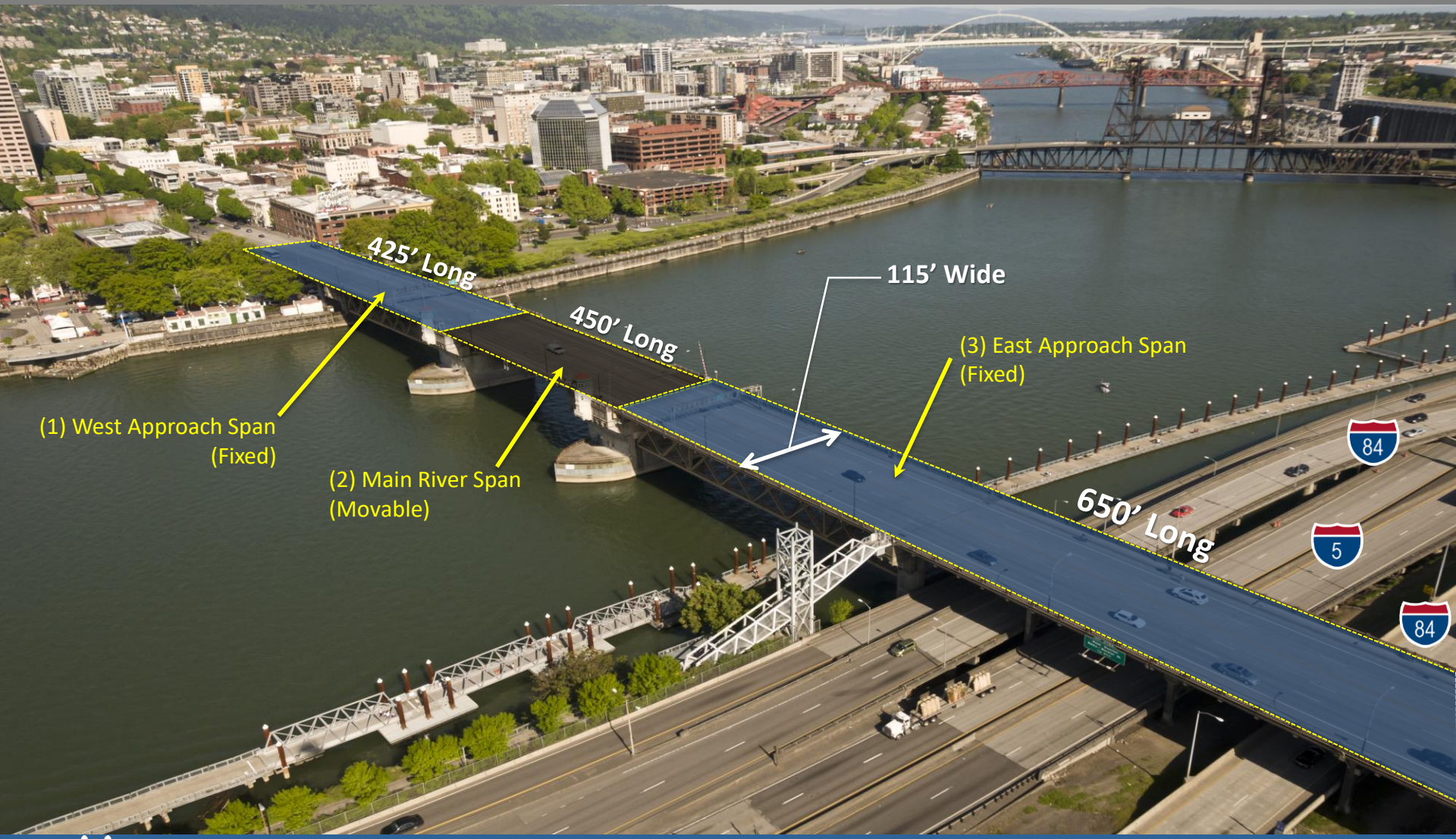
- Fire Station No. 1
- Ankeny Pump Station
- Union Pacific Railroad
- Union Arms
- Starks



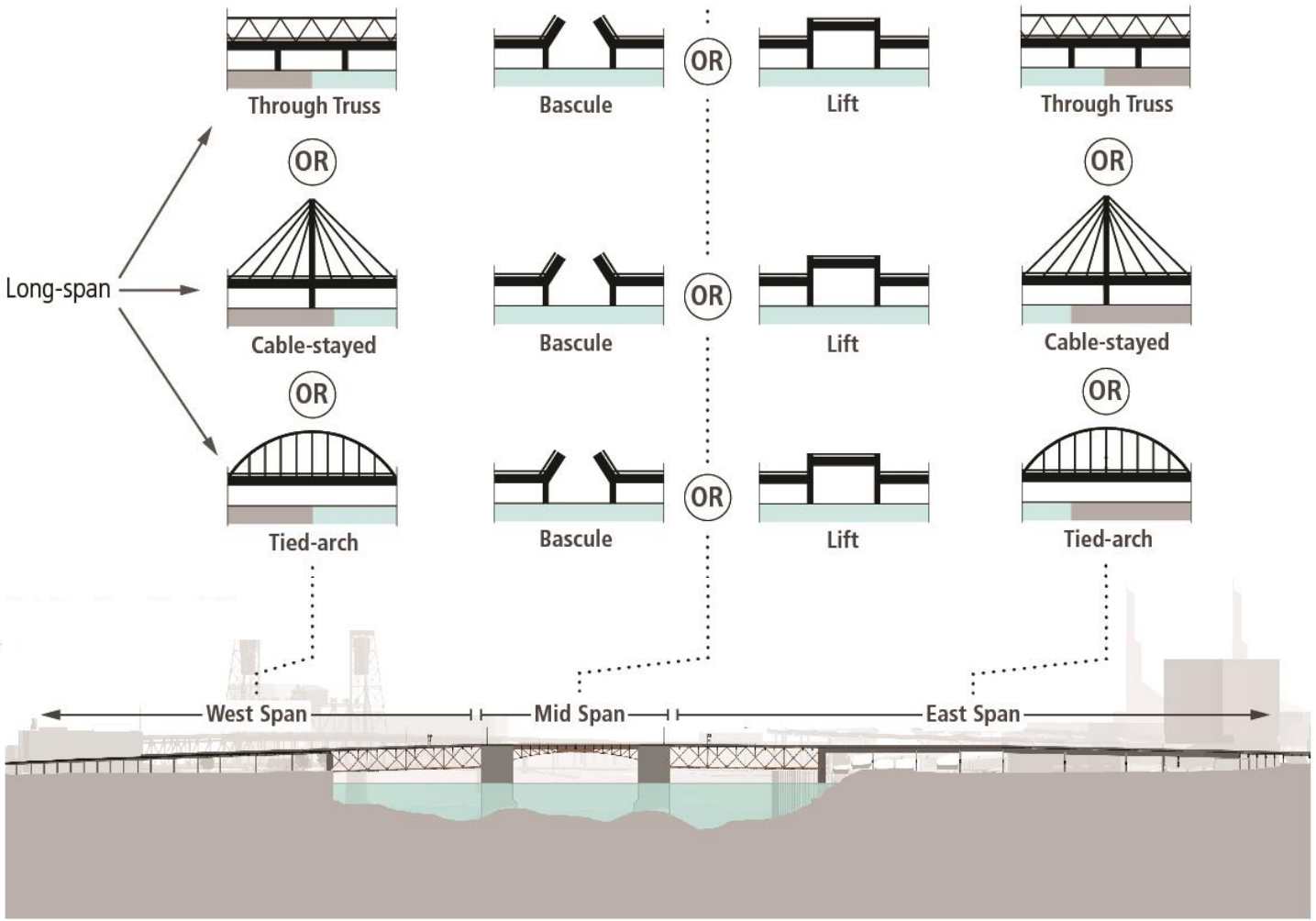
Bridge Types Update

EARTHQUAKE READY BURNSIDE BRIDGE

Long-span Alternative: “Three bridges in one”



Bridge Types Update



Bridge Types Update

EARTHQUAKE READY BURNSIDE BRIDGE

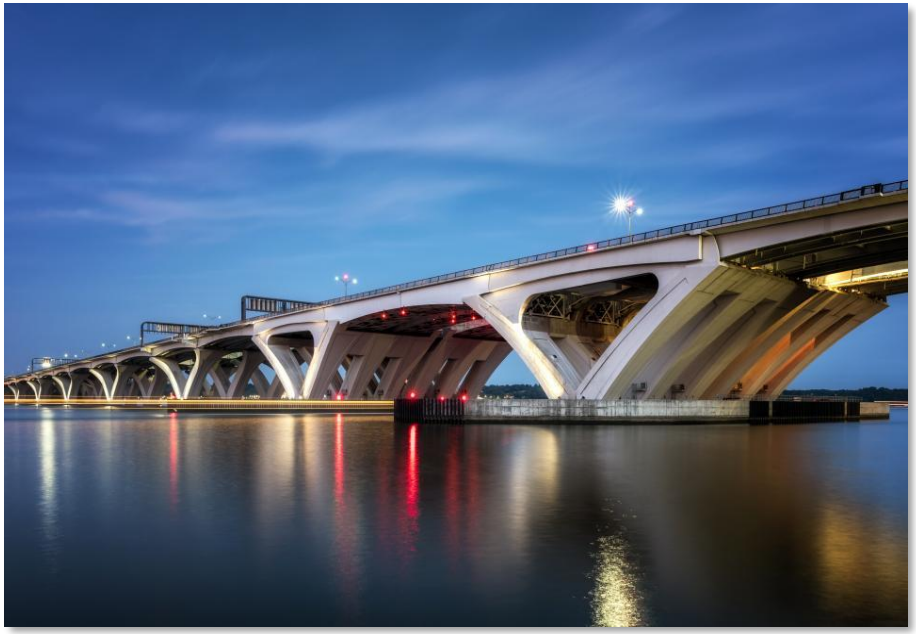
Technically Feasible Movable Bridge Types

✓

Lift

- 140 ft tall towers (from bridge deck)
- Individual or strong truss tower
- Single or split towers

✓



Bascule

- Delta pier
- Twin leaf
- Rustic or modern style

Bridge Types Update

EARTHQUAKE READY BURNSIDE BRIDGE

Technically Feasible Fixed Approach Bridge Types

Tied Arch

- Arch height: ~85’ tall (west side) and ~120’ tall (east side), plus some design variability
- Conventional arch style can be with or without rib bracing
- Various arch inclinations but would require arch rib bracing or cable stiffening

Truss

- Truss height variability with ~60’ tall (west side) and ~90’ tall (east side)
- Conventional thickened towers
- Rustic, modern, or other styles applicable
- Requires truss bracing above

Bridge Types Update

EARTHQUAKE READY BURNSIDE BRIDGE

Technically Feasible Fixed Approach Bridge Types

Cable Stayed

- Two taller towers (~100’ tall west side and ~200’ tall east side)
- Variable tower inclinations and cable patterns

Extradosed

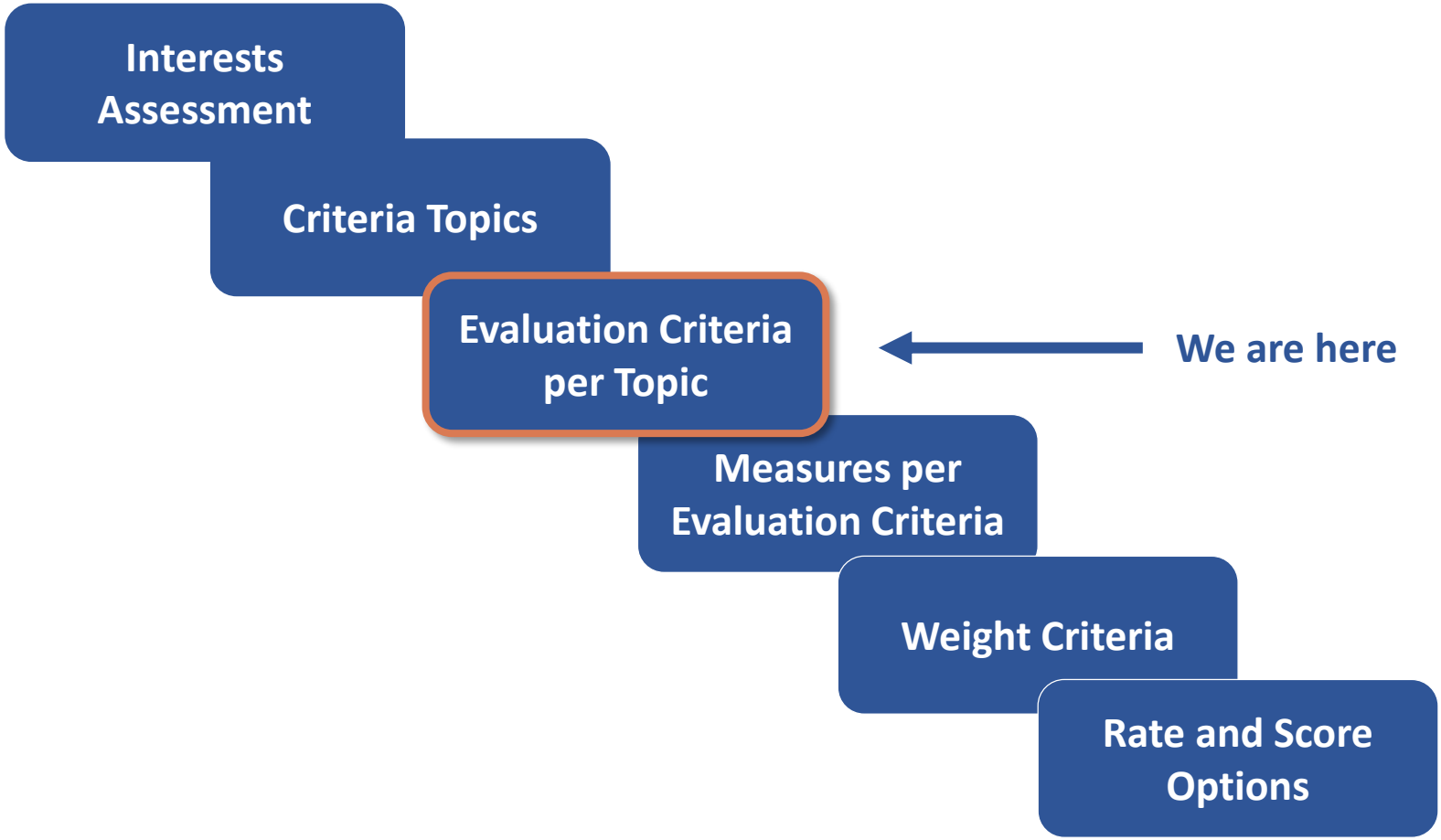
- Two moderately tall towers (50’ west side and 100’ east side)
- Thicker bridge deck
- Limited tower inclinations and cable patterns

Questions / Break

Criteria Development

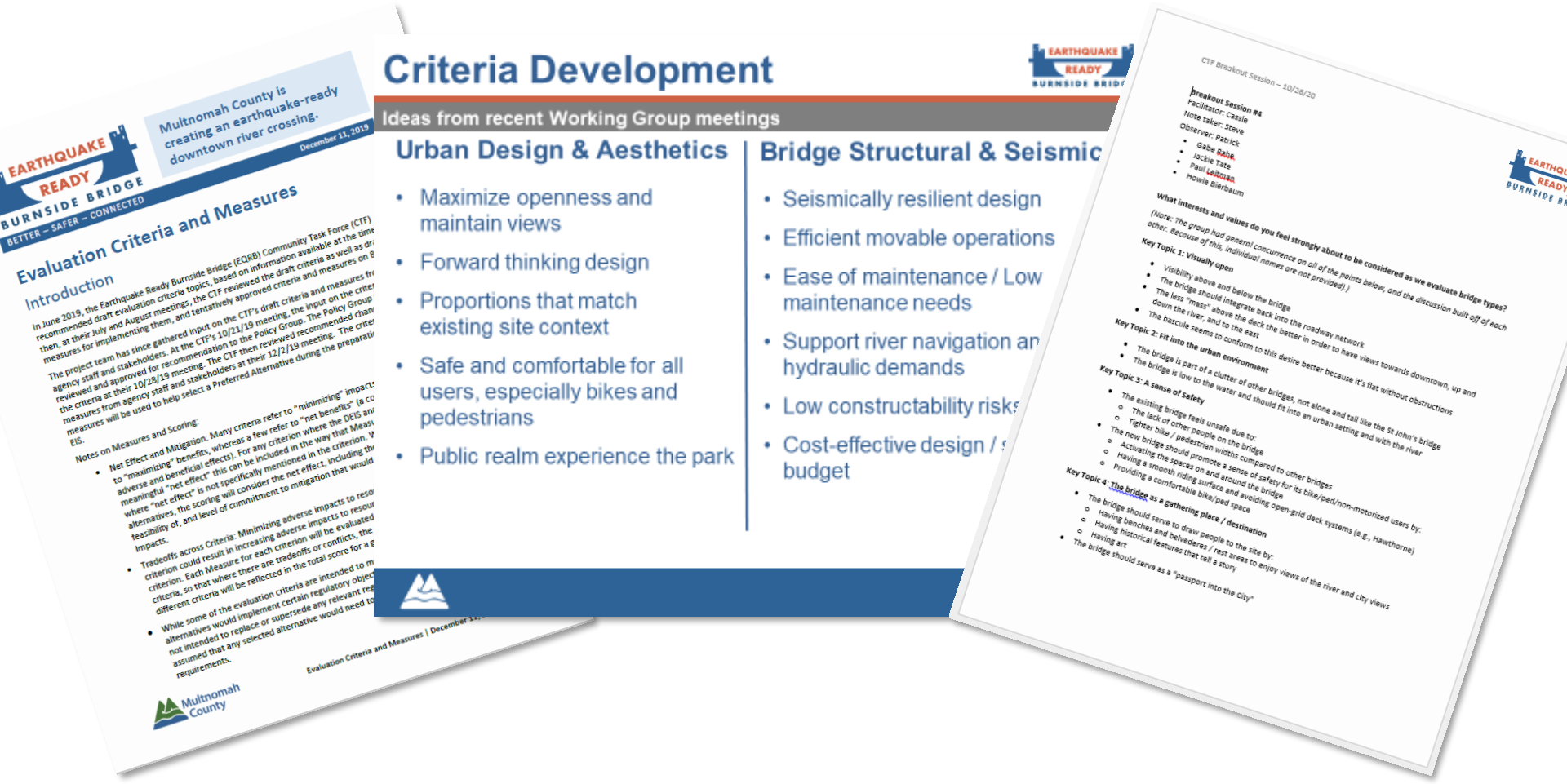
EARTHQUAKE READY BURNSIDE BRIDGE

Evaluation Process - *Steps in Getting to a Recommended Bridge Type*



Criteria Development

Considerations: Prior Criteria + Working Group Input + CTF Interests and Values



Criteria Development

Assessment of NEPA Selection Criteria

Type Selection Evaluation Criteria Assessment Sheet

Status Date: November 15, 2020

Group	Criteria	Anticipated Level of Differentiation between Bridge Options						
		Unknown	None or Very Small	Small	Moderate	Large	Very Large	Notes
Group 1: Seismic Resiliency	1a.1: Maximize confidence in post-earthquake crossing operability and reparability.		X					Same performance mechanisms
	1a.2: Maximize ability for all modes to use the crossing post-earthquake.		X					Same roadway cross section
	1a.3 Minimize risk that adjacent buildings could damage or block the bridge after a major earthquake, and minimize risk that crossing construction could lessen the seismic resilience of adjacent buildings.		X					Same proximity to vulnerable buildings
	1b.1: Minimize delay in achieving a seismically resilient crossing.	X						Const duration differences TBD
Group 2: Community Quality of Life (includes Indirect Land Use Impacts and Community Resources)	2a.1: Minimize long-term noise and light/shadow impacts.			X				Slight bridge width change for structural members
	2a.2: Minimize long-term impacts to community facilities and events under and near the bridge (e.g., Skatepark, Saturday Market, park festivals, parades, organized runs, etc.).					X		Westside solution provides variability
	2b.1: Minimize temporary impacts to community facilities and events under and near the bridge.	X						Const duration differences TBD
Group 3: Equity and Environmental Justice (includes Social Services)	3a.1: Minimize displacements of emergency beds.		X					Same permanent impacts
	3a.2: Maintain social service providers' long-term ability to provide current level of service and potential for enhancement.		X					Same permanent impacts
	3a.3: Avoid disproportionate adverse impacts to vulnerable and Environmental Justice communities.		X					Same permanent impacts
	3b.1: Minimize temporary impacts to social service providers.		X					Same temporary impacts
	3b.2: Avoid temporary disproportionate adverse impacts to vulnerable and Environmental Justice communities.		X					Same temporary impacts
	3b.3: Ensure that design and construction approach allow ample opportunities for DBE firms to be involved in the construction/contracting process.	X						Final Design Issue
Group 4: Crime Reduction & Personal Safety	4a.1: Maximize personal safety and crime reduction by following principles of Crime Prevention Through Environmental Design (CPTED).				X			Westside solution provides variability

= Permanent Criteria

= During Construction Criteria

Criteria Development

Assessment of NEPA Selection Criteria

Type Selection Evaluation Criteria Assessment Sheet

Status Date: November 15, 2020

Group	Criteria	Anticipated Level of Differentiation between Bridge Options						
		Unknown	None or Very Small	Small	Moderate	Large	Very Large	Notes
Group 5: Business and Economics	5a.1: Minimize business displacements and permanent access impacts.				X			Eastside & westside solutions provides variability
	5a.2: Support redevelopment potential consistent with local plans.		X					Same impacts
	5b.1: Minimize temporary access impacts to businesses.		X					Same impacts
	5b.2: Minimize temporary regional economic impacts.		X					Same impacts
	5b.3: Minimize loss of economic benefits (includes businesses and charities) from temporary impacts to major community events under and near the bridge.		X					Same impacts
Group 6: Park and Recreation Resources	6a.1: Minimize park displacements and adverse functionality impacts, (include impacts to river recreation).						X	Westside & in-river solutions provides variability
	6b.1: Minimize temporary impacts to parks.			X				Small variations for westside construction method
Group 7: Historic Resources	7a.1: Minimize historic resource impacts.					X		Westside solution provides variability
	7b.1: Minimize temporary impacts to historic resources.		X					Same impacts
Group 8: Visual and Aesthetics	8a.1: Minimize adverse impacts to existing views and view corridors.						X	Total Composition provides variability
	8a.2: Maximize aesthetic experience for all users approaching, on, and under the bridge.						X	Total Composition provides variability
	8a.3: Create opportunity for a crossing that provides an iconic/demonstrative visual experience.						X	Total Composition provides variability

= Permanent Criteria

= During Construction Criteria

Criteria Development

Assessment of NEPA Selection Criteria

Type Selection Evaluation Criteria Assessment Sheet

Status Date: November 15, 2020

Group	Criteria	Anticipated Level of Differentiation between Bridge Options						
		Unknown	None or Very Small	Small	Moderate	Large	Very Large	Notes
Group 9: Natural Resources, Climate Change and Sustainability	9a.1: Minimize impacts to water quality and flooding.				X			Size of in-water piers affect hydraulics and dredging
	9a.2: Minimize impacts to fish and wildlife.			X				Size of in-water piers affecting hydraulic flow
	9b.1: Minimize temporary impacts to water quality and flooding.			X				Construction method impacts in-water work qtys
	9b.2: Minimize temporary impacts to air quality and green-house gas emissions.	X						Final Design Issue
	9b.3: Minimize temporary impacts to fish and wildlife.			X				Construction method impacts in-water work qtys
	9b.4: Minimize resource consumption and waste production during construction.	X						Final Design Issue
Group 10: Pedestrians, Bicyclists and People with Disabilities (ADA – Americans with Disabilities Act)	10a.1: Maximize City's Vision Zero principles for safety and comfort for bicyclists, pedestrians, and other low-impact vehicles (e.g., scooters, skateboards).		X					Same permanent cross section, slopes, and protections
	10a.2: Maximize access/connectivity for bicyclists and other low-impact vehicles.		X					Same permanent access and connectivity
	10a.3: Maximize access/connectivity for pedestrians and ADA.		X					Same permanent access and connectivity
	10b.1: Minimize temporary travel time and access/connectivity impacts to bicyclists.		X					Same temp access / connectivity; Const duration differences TBD
	10b.2: Minimize temporary travel time and access/connectivity impacts to pedestrians.		X					Same temp access / connectivity; Const duration differences TBD
	10b.3: Maximize City's Vision Zero principles for safety and comfort for bicyclists, pedestrians, and other low-impact vehicles (e.g., scooters, skateboards).		X					Same temporary features

= Permanent Criteria = During Construction Criteria

Criteria Development

Assessment of NEPA Selection Criteria

Type Selection Evaluation Criteria Assessment Sheet

Status Date: November 15, 2020

Group	Criteria	Anticipated Level of Differentiation between Bridge Options						
		Unknown	None or Very Small	Small	Moderate	Large	Very Large	Notes
Group 11: Motor Vehicles, Freight and Emergency Vehicles	11a.1: Maximize safety for motor vehicles and freight.		X					Same permanent cross section, slopes, and protections
	11a.2: Maximize emergency service operations and responsiveness.		X					Same permanent emergency service operation impacts
	11b.1: Minimize temporary access and travel time impacts to, freight and emergency vehicles.		X					Same detours and re-routing; Const duration differences TBD
	11b.2: Minimize temporary safety, impacts to motor vehicles, freight, and emergency vehicles.		X					Same detours and re-routing
	11b.3: Minimize temporary access and travel time impacts to motor vehicles.		X					Same detours an rerouting; Const duration differences TBD
Group 12: Transit	12a.1: Maximize streetcar readiness.			X				Minor differences for Streetcar amenities
	12a.2: Maximize bus accessibility.		X					Same detours and re-routing
	12a.3: Minimize transit collision vulnerability.		X					Same transit collision vulnerability
	12b.1: Minimize temporary impacts on transit access, safety, travel times and ridership.		X					Same detours and re-routing; Const duration differences TBD
Group 13: Fiscal Responsibility	13a.1: Minimize total project cost.					X		Differing Project costs
	13a.2: Minimize long-term maintenance needs/cost.					X		Differing Maintenance and Inspection costs

= Permanent Criteria

= During Construction Criteria

Criteria Development

Assessment of NEPA Selection Criteria

Summary of Key Differentiators Incorporated into Draft Evaluation Criteria for Type Selection

Urban Context & Experience

- Minimize long-term impacts to community facilities and events under and near the bridge (e.g., Skatepark, Saturday Market, park festivals, parades, organized runs, etc.).
- Maximize personal safety and crime reduction by following principles of Crime Prevention Through Environmental Design (CPTED).
- Minimize park displacements and adverse functionality impacts, (include impacts to river recreation).
- Minimize historic resource impacts.
- Minimize adverse impacts to existing views and view corridors.
- Maximize aesthetic experience for all users approaching, on, and under the bridge.

Visuals & Aesthetics

- Minimize historic resource impacts.
- Minimize adverse impacts to existing views and view corridors.
- Maximize aesthetic experience for all users approaching, on, and under the bridge.
- Create opportunity for a crossing that provides an iconic/demonstrative visual experience.

Cost and Construction

- Minimize impacts to water quality and flooding.
- Minimize total project cost.
- Minimize long-term maintenance needs/cost.

Criteria Development

What We Heard – Key Themes – *LAST MEETING*

Bridge Users	Active Transportation / ADA Enhancement – **Non-Differentiator for bridge type selection**
	Motorized Vehicles / Freight Operations – **Non-Differentiator for bridge type selection**
	Personal Safety – **Non-Differentiator for bridge type selection**
	Public Gathering Place / Destination – **Included in "Urban Context and Experience" Criteria**
	Transit Operations – **Non-Differentiator for bridge type selection**
Technical Design and Function	Environmental Enhancement and Stewardship – **Non-Differentiator for bridge type selection**
	Fiscally Smart – **Included in "Cost" Criteria**
	River Navigation Operations – **Non-Differentiator for bridge type selection**
	Seismic Resiliency – **included in "Cost" Criteria**
	Utilities – **Included in "Cost" Criteria**
Urban Setting	Community Connectivity - **Included in "Urban Context and Experience" Criteria**
	History and Culture – **Included in "Urban Context and Experience" Criteria**
	Site Integration – **Included in "Urban Context and Experience" Criteria**
	Visuals, Views, and Aesthetics – **Included in "Visual and Aesthetics" Criteria**

Criteria Development

EARTHQUAKE READY BURNSIDE BRIDGE

Key Themes – *REFINED*

Urban Context & Experience	On-bridge Experience
	Urban Setting
	Public Use and Context
Visuals & Aesthetics	Visual Coherence
	Bridge Form and Style
	Bridge Aspirations
Cost & Construction	Total Project Cost
	Long Term Costs
	Construction Impacts to Users

Note – highlighted item added since 11/24 packet

Criteria Development

Draft Evaluation Topics and Criteria

I. Urban Context and Experience

A. On-bridge Experience: How well does the bridge option provide public benefits from its deck surface, including:

- Views from the bridge deck toward the cityscape, including downtown and the Eastside, distant landscapes and natural environment, adjacent up- and down-river bridges, and other key viewpoints.
- Bridge type that provides opportunities for programming and public events (such as the Rose Festival Parade) and civic gatherings
- Others?

Criteria Development

Draft Evaluation Topics and Criteria

I. Urban Context and Experience *(continued)*

B. Urban Setting: How well does the bridge option's scale and form authentically fit with the scale and character of surrounding neighborhoods, buildings, parks and districts, including the:

- Westside Old Town/Chinatown and Downtown neighborhoods
- West bridgehead buildings and infrastructure shapes, scale, textures, and color
- Eastside Kerns and Buckman neighborhoods and Central Eastside Industrial District
- East bridgehead buildings and infrastructure shapes, scale, textures, and colors
- Others?

Criteria Development

Draft Evaluation Topics and Criteria

I. Urban Context and Experience *(continued)*

C. Public Use and Context: How well does the bridge option fit within park and river environments under and adjacent to the bridge, including:

- Ability to improve safety by minimizing columns, and creating adequate sightlines and clearances beneath the bridge structure
- Ability to further activate and enhance the under-bridge space within Waterfront Park for community events and other programmed activities
- Flexible open space and opportunity for an "urban roof" that provides public benefit
- Integration with the Japanese American Memorial Plaza, Ankeny Plaza, Bill Naito Legacy Fountain, and Better Naito Forever, and Vera Katz Eastbank Esplanade
- Compatibility with the varied Willamette River uses, water-surface variability, and reflectiveness on the river surface
- Compatibility with the Burnside Skate Park and local streetscape on the East side
- Attractive under-bridge design consideration, including lighting, materials, and detailing
- Others?

Criteria Development

Draft Evaluation Topics and Criteria

II. Visual and Aesthetics

A. Visual Coherence: How well does the bridge option's composition provide the perception of visual balance, unity, and flow from key viewpoints, including: Willamette River, Waterfront Park, Eastbank Esplanade, I-5 / I-84 users, Bridgehead buildings, high-rise buildings, and surrounding bridges.

- Others?

Criteria Development

Draft Evaluation Topics and Criteria

II. Visual and Aesthetics *(continued)*

B. Bridge Form and Style: How well does the bridge option:

- Express the Portland values and aspirations for inclusiveness, resiliency, accessibility, creativity, optimism, vitality, sustainability, and freedom of expression
- Become an identifiable landmark and destination within the city
- Balance the overall composition, qualities of openness and transparency (i.e., minimizing the massings) while conveying a sense of seismic stability and reliability
- Respect the past and context while presenting a "forward-thinking" design aesthetic that sets the tone for future urban development and growth throughout its 100-year design life
- Reflect proportions and scale that feel balanced among the various structural portions
- Honor Portland's moniker as a "City of Bridges" and its unique location as the center of the City quadrants
- Reflect Portland's transportation values in bicycle and pedestrian safety and accessibility
- Others?

Criteria Development

EARTHQUAKE READY BURNSIDE BRIDGE

Draft Evaluation Topics and Criteria

II. Visual and Aesthetics *(continued)*

C. Bridge Aspirations: How well does the bridge option enable opportunities for:

- Memorable, distinctive lighting for nighttime viewing
- Creation of a gateway and enhanced sense of arrival to and from each side of the river
- Technologies that represent the era in which the bridge is designed, including the potential for exposing the movable bridge mechanisms
- Tactile, human/pedestrian-scale features within its public spaces, including overlooks
- Adapting to future bridge use or under-bridge use changes
- A range of complementary design elements (e.g., Operator's House, Multi-use path Connections, Streetcar features, overlooks, etc) to be selected during the Final Design phase
- Others?

Criteria Development

Draft Evaluation Topics and Criteria

III. Cost and Construction

A. Total Project Cost: How well does the bridge option minimize the total direct Project Cost, including:

- Construction costs, including the influence of constructability over and around existing transportation infrastructure, the Willamette River, buildings, and utilities
- Permanent and temporary right of way acquisition costs
- Utility relocation and protection costs
- Pre-construction design phase costs
- Permitting and environmental mitigation costs
- Construction inspection and engineering support costs
- Others?

Criteria Development

EARTHQUAKE READY BURNSIDE BRIDGE

Draft Evaluation Topics and Criteria

III. Cost and Construction *(continued)*

B. Long Term Costs: How well does the bridge option support future inspection operations, minimize long-term maintenance costs, and support future adaptability costs, including:

- Direct cost of bridge operations and inspections
- Direct cost for anticipated, routine maintenance and rehabilitation improvements (e.g., movable bridge repairs, deck wearing surface rehabilitation, re-painting, lighting maintenance, structural upgrades, etc)
- Direct costs for any necessary bridge repairs following major events (e.g., major earthquake, major flood, vessel collisions, civic unrest, etc)
- Direct cost for potential bridge use changes (e.g., Adding Streetcar operations onto the bridge; Adding more bicycle/pedestrian space; Adjusting for future lane uses; etc)
- Others?

Criteria Development

EARTHQUAKE READY BURNSIDE BRIDGE

Draft Evaluation Topics and Criteria

III. Cost and Construction *(continued)*

C. Construction Impacts to Users: How well does the bridge option's construction approach provide the greatest benefit to stakeholders and adjacent property owners, including:

- Rapid project completion (i.e., the least construction duration)
- Least amount of temporary and permanent property impacts
- Least amount of utility service disruptions
- Others?

Note – highlighted items added since 11/24 packet

CTF Discussion

- *Do these make sense?*
- *What are we missing?*

Next Steps

Upcoming CTF Meetings

- **December 21:**
  - Finalize criteria
  - Confirm range of feasible bridge types
- **January – TBD:**
  - Refine measures

Open Discussion

Closing Remarks

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Thank you!