EARTHQUAKE READY BURNSIDE BRIDGE

Policy Group Meeting #7

Members join meeting via WebEx link in calendar invite

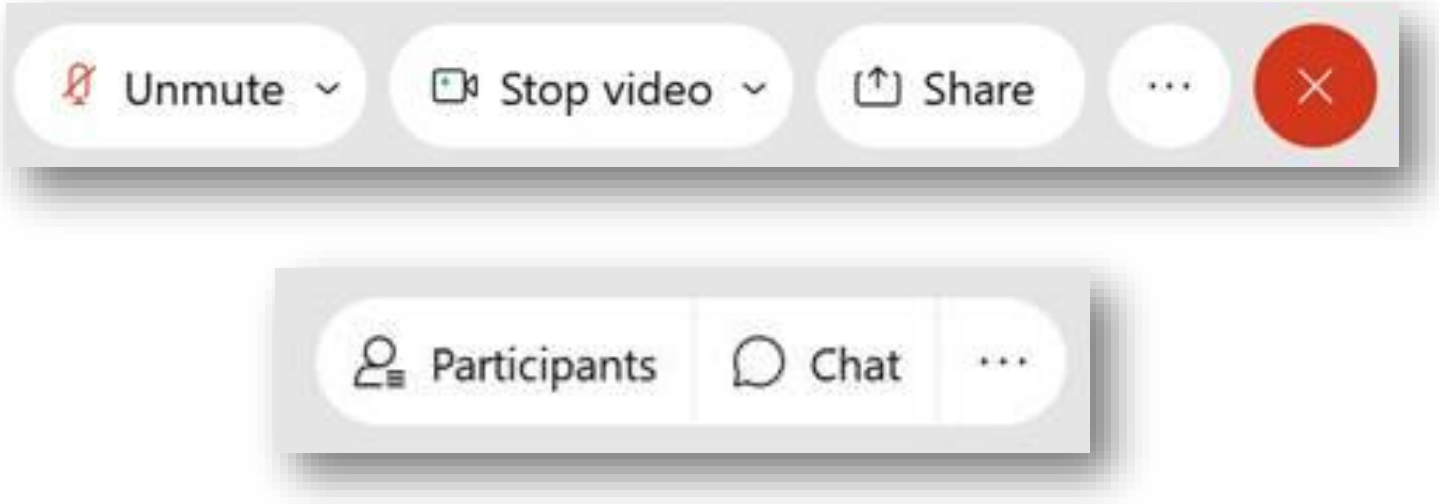
NOTE: Meeting is live to the public and recorded

Department of Community Services
Transportation Division

October 2, 2020

Meeting Protocols

Using WebEx participation features

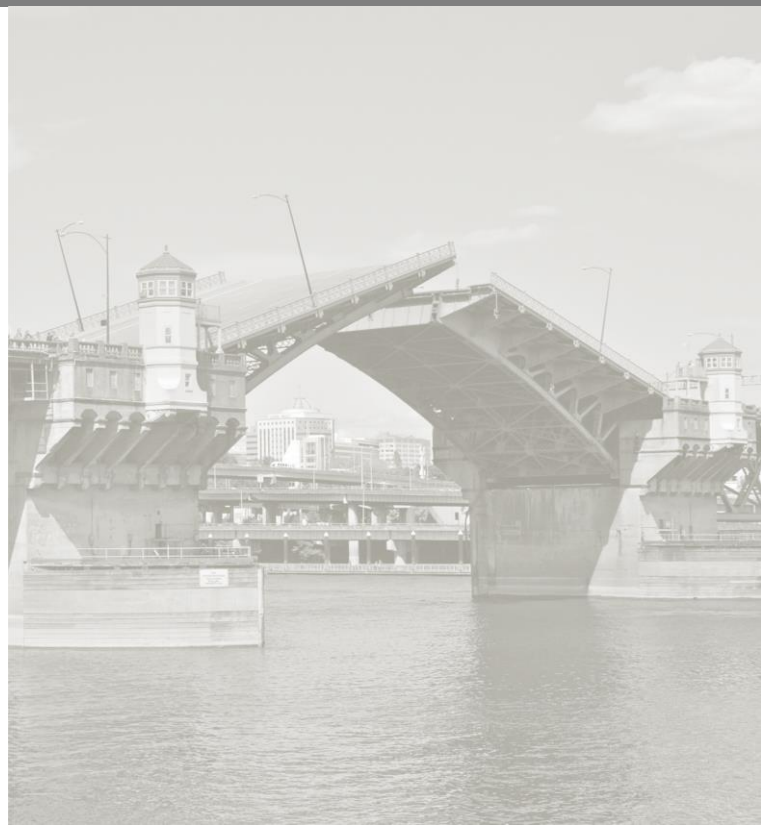


For WebEx tech support call or email Liz Stoppelmann:
(916) 200-5123
Liz.Stoppelmann@hdrinc.com

Welcome and Introductions

Agenda

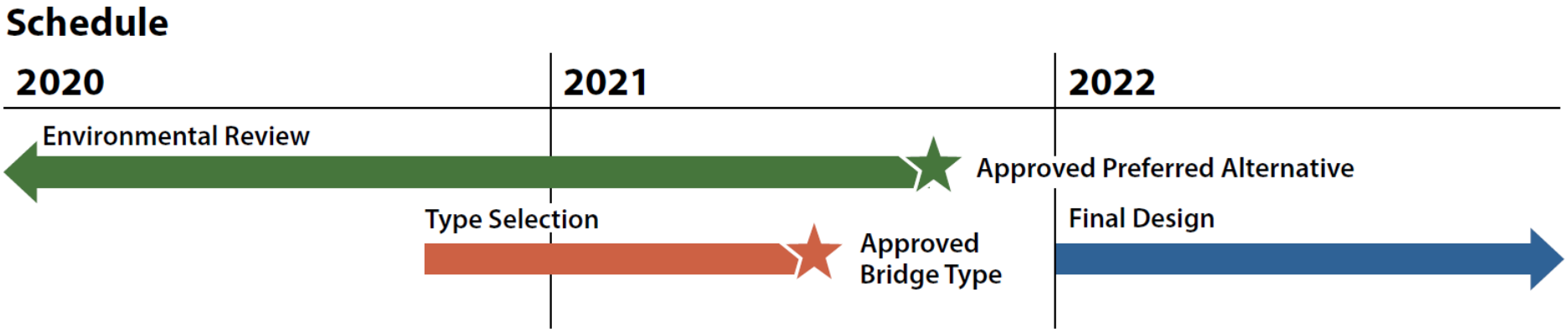
1. Welcome and Introductions
2. Opening Remarks
3. Public Comment
4. Project Update
5. Community Task Force Recommendation Review and Policy Group Approval
6. Bridge Type Selection Phase Overview
7. Next Steps and Closing Remarks



Opening Remarks

Public Comments

Project Update



- **Funding**
  - Metro Transportation Bond – Get Moving 2020
  - Multnomah County Vehicle Registration Fee
- **Owner's Representative Contractor**

When you last met…

Dismissing High Fixed Bridge Alternative

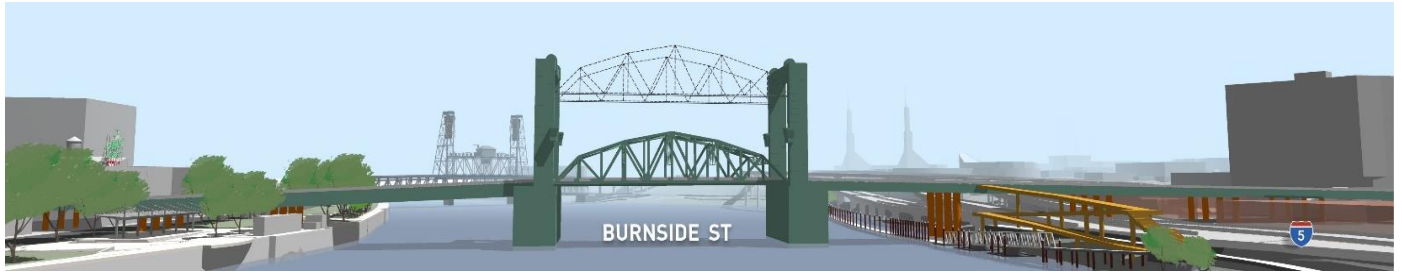
When you last met…

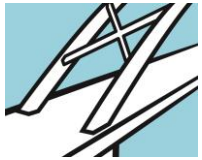
EARTHQUAKE READY BURNSIDE BRIDGE

Range of Bridge Alternatives

Enhanced Seismic Retrofit

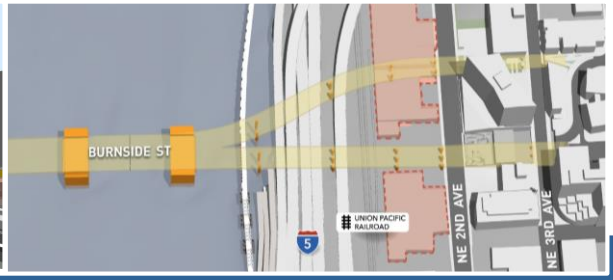
Replacement **Short Span** (Bascule or Lift)





Replacement **Long Span** (Bascule or Lift)

Replacement **Couch Extension** (Bascule or Lift)



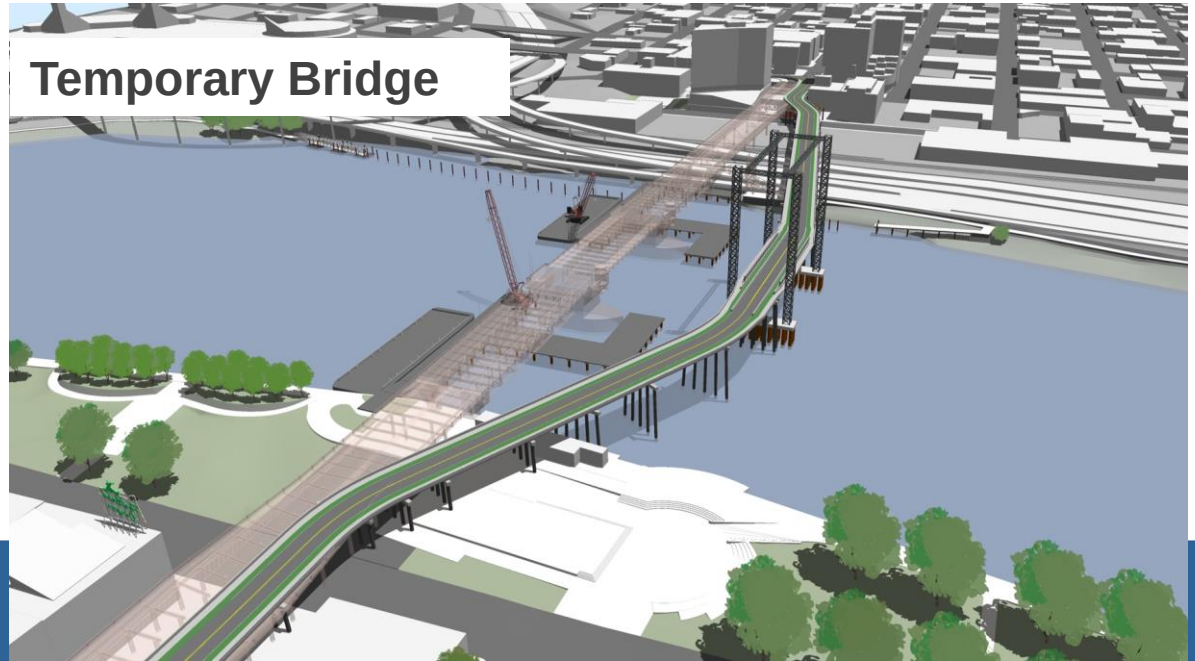
(Concept Images)

When you last met…

Traffic Options During Construction

Full Bridge Closure

Temporary Bridge



Preferred Alternative

We are asking for Policy Group review and approval of the CTF's recommended Preferred Alternative, including:

1) A Preferred Bridge Alternative

2) A Preferred Traffic Option During Construction

Community Task Force

EARTHQUAKE READY BURNSIDE BRIDGE

Review Recommendation On

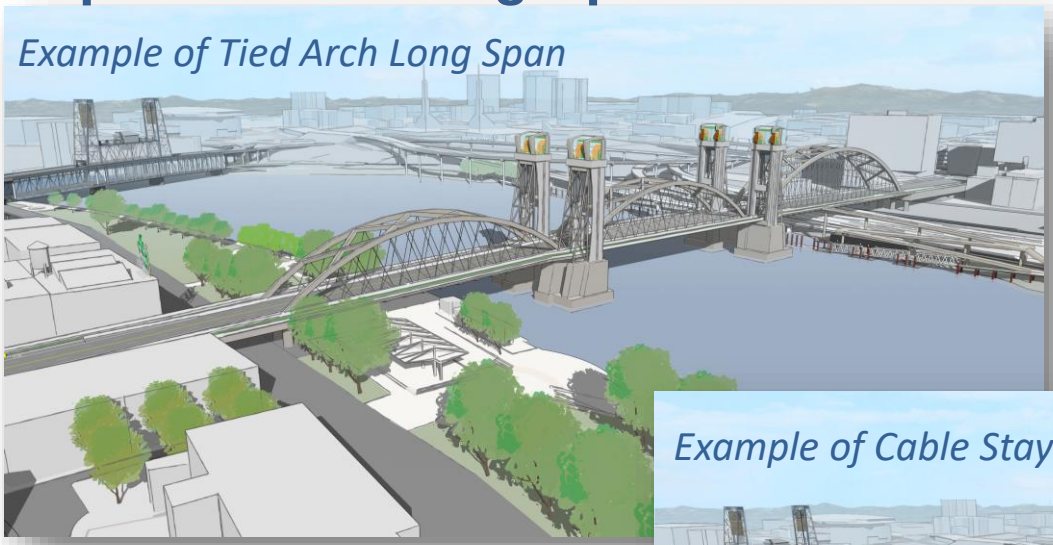
A Preferred Bridge Alternative

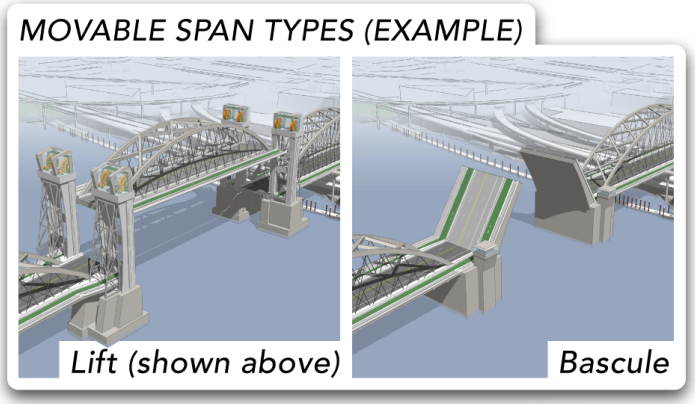
Community Task Force Recommendation

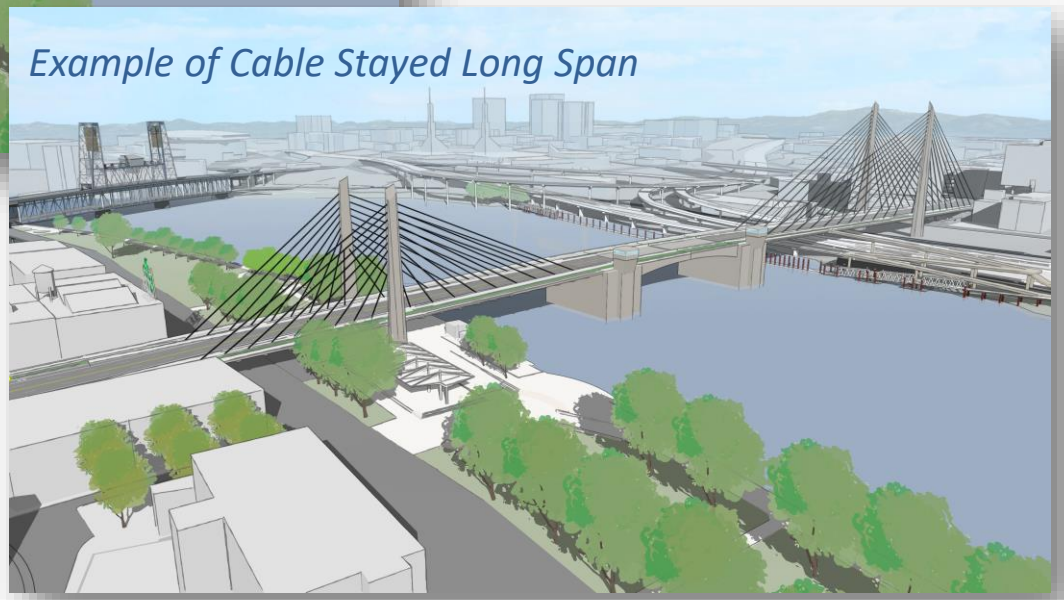
EARTHQUAKE READY BURNSIDE BRIDGE

Preferred Bridge Alternative

Replacement Long Span







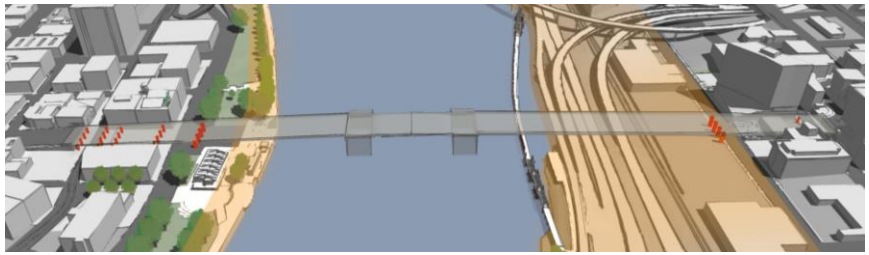
The example images above are just a couple variations of what a long span bridge could look like.

Best for Seismic Resiliency

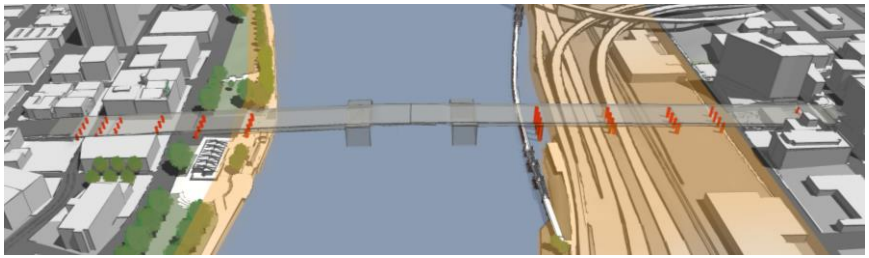
EARTHQUAKE READY BURNSIDE BRIDGE

Locating fewer columns in liquefiable soils gives it the least risk from soil movement during an earthquake

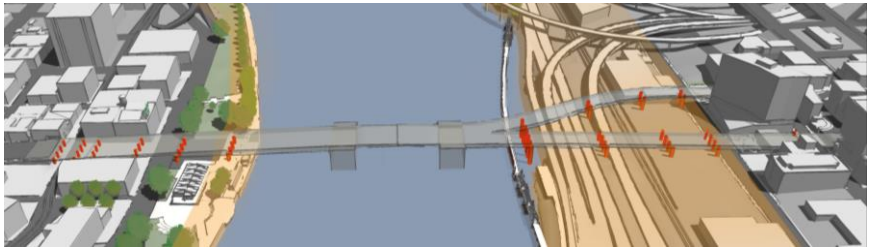
Replacement
Long Span



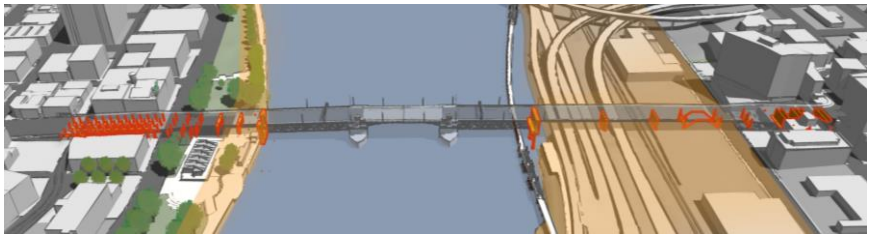
Replacement
Short Span



Replacement
Couch Extension



Enhanced
Seismic Retrofit



Enhances/Preserves Community

EARTHQUAKE READY BURNSIDE BRIDGE

Reduced number or columns enhances use of Waterfront Park and preserves the Burnside Skatepark

(Concept Images)

Improved Safety

EARTHQUAKE READY BURNSIDE BRIDGE

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

(Concept Image)

Impacts on Views

CTF Concern: Explore ways to mitigate the long span's impacts on views

View from south sidewalk (Arch Concept)

View from south sidewalk (Cable Stayed Concept)

View from north sidewalk near midspan (Arch Concept)

View from north sidewalk near midspan (Cable Stayed Concept)

(Concept Images)

CTF Recommendation

Preferred Alternative: Replacement – Long Span

What we heard from the CTF:

- Best for seismic resiliency
- Least cost alternative ($825 million compared to $950 million)
- Enhances/preserves community resources
- Improved safety for bicyclists, pedestrians and other users
- Least impacts to natural resources
- Explore ways to mitigate the long span's impacts on views

Community Task Force

EARTHQUAKE READY BURNSIDE BRIDGE

Review Recommendation On

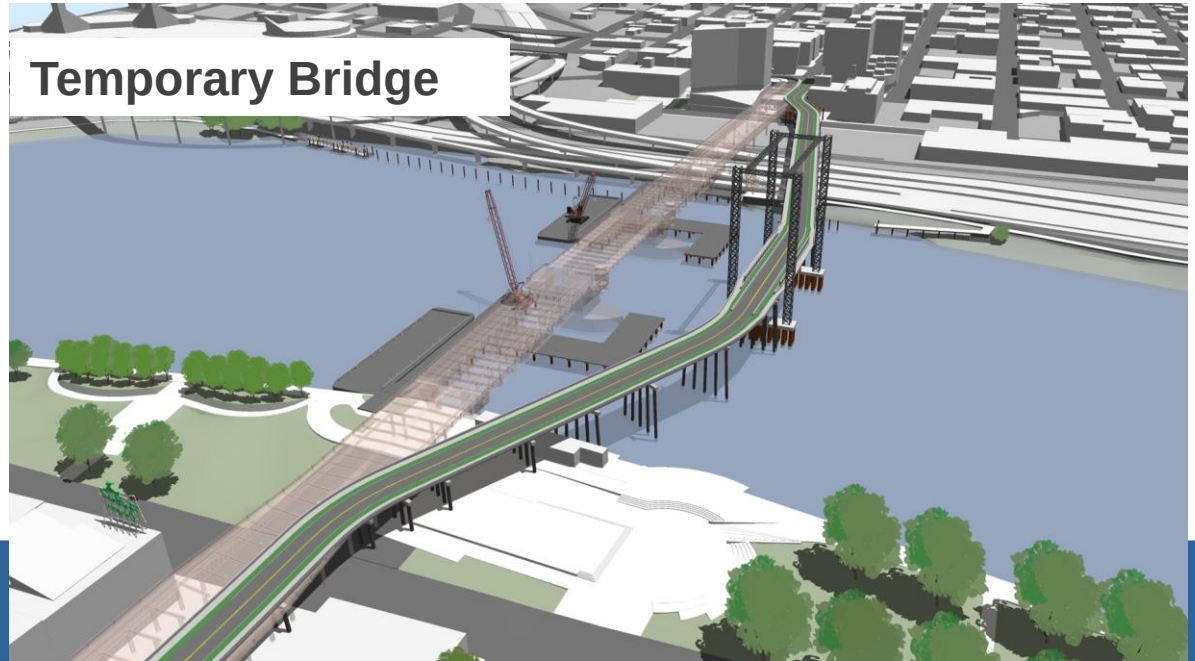
Traffic Option During Construction

Traffic Options During Construction

EARTHQUAKE READY BURNSIDE BRIDGE

Full Bridge Closure

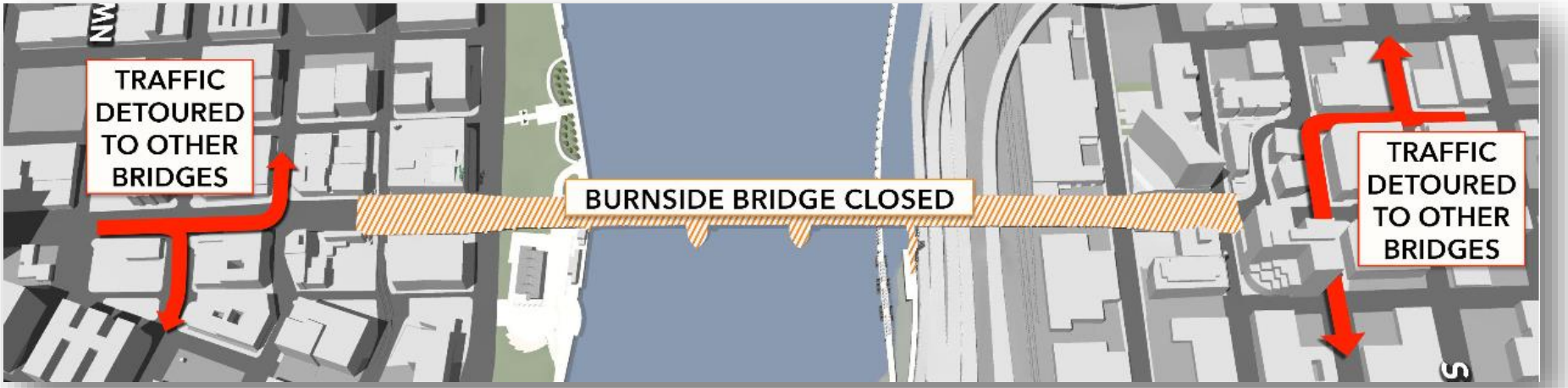
Temporary Bridge



Community Task Force Recommendation

Preferred Alternative

Traffic During Construction: Full Bridge Closure



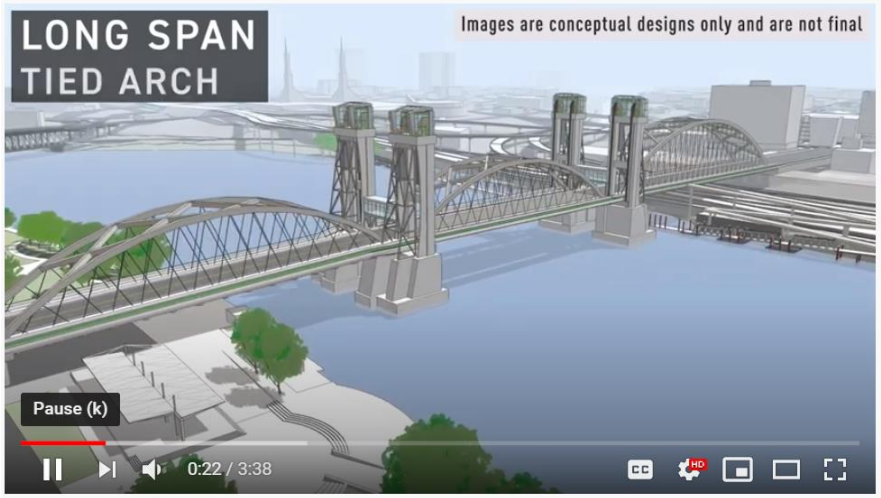
What we heard:

- **Least cost** – the temporary bridge would add $90 million to the project cost
- **Shortest construction duration** – the temporary bridge would add 1.5 to 2 years to construction duration, extending duration of impacts to surrounding area including parks, residents, recreational activities and transportation
- Least in-water construction which **reduces impact to natural resources**

Summer/Fall Outreach

Key Activities

- Online open house
- Briefings
- Videos
- Social Media and Notifications
- Community Engagement Liaisons Program



Summer/Fall Outreach

EARTHQUAKE READY BURNSIDE BRIDGE

By the Numbers

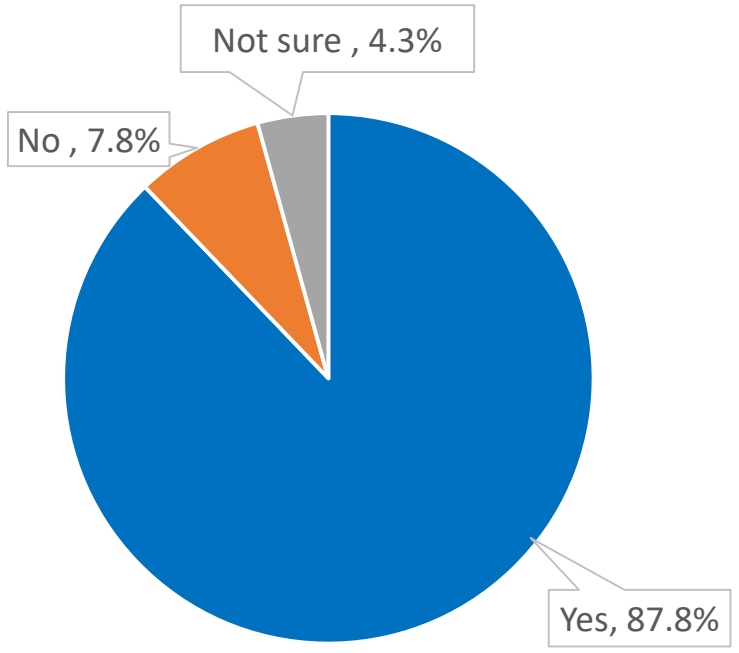
70+	**BRIEFINGS** to agencies, individuals, and organizations
19	**DEI** organizations reached
25,000+	**UNIQUE VISITORS** to the online open house and survey
6,800+	**SURVEY RESPONSES**
6	In-language **TRANSLATIONS** of the online open house and materials
38	Social media **POSTS** and **ADVERTISEMENTS**
2,578	E-newsletter **RECIPIENTS**
4	**NEWS RELEASES AND E-NEWSLETTERS**
147	**BUSINESSES CONTACTED** via phone canvassing
41,900	**FLYERS MAILED**

Summer/Fall Outreach

What we heard

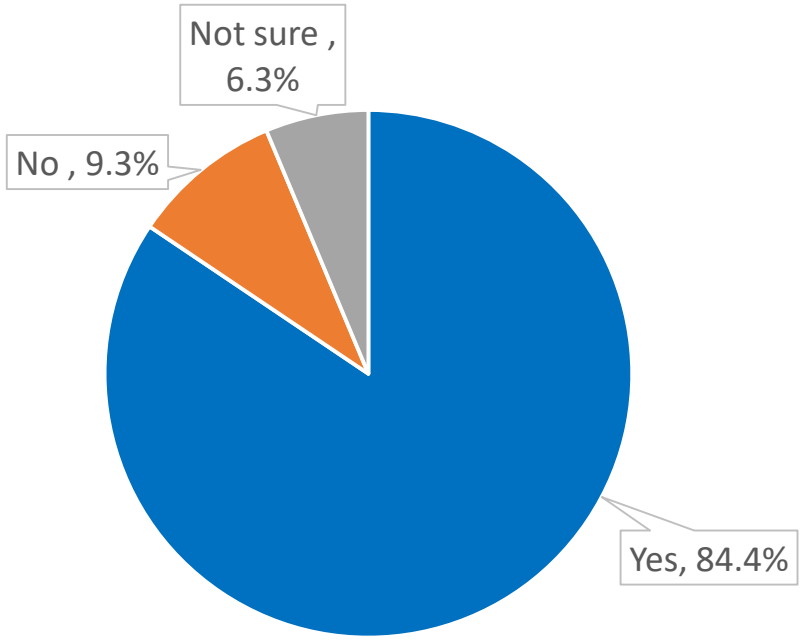
Is the Replacement Long Span the right choice?

87.8% agree with the Replacement Long Span



Is a full bridge closure during construction the right choice?

84.4% agree with a full bridge closure



Summer/Fall Outreach

What we heard

Replacement Long Span

Top comment themes:

- Cost savings
- Fewest overall impacts
- Safest and most seismically resilient
- Preservation of Skatepark
- Concerns with the aesthetics of the conceptual renderings
- Concerns with losing historic resources

Full bridge closure

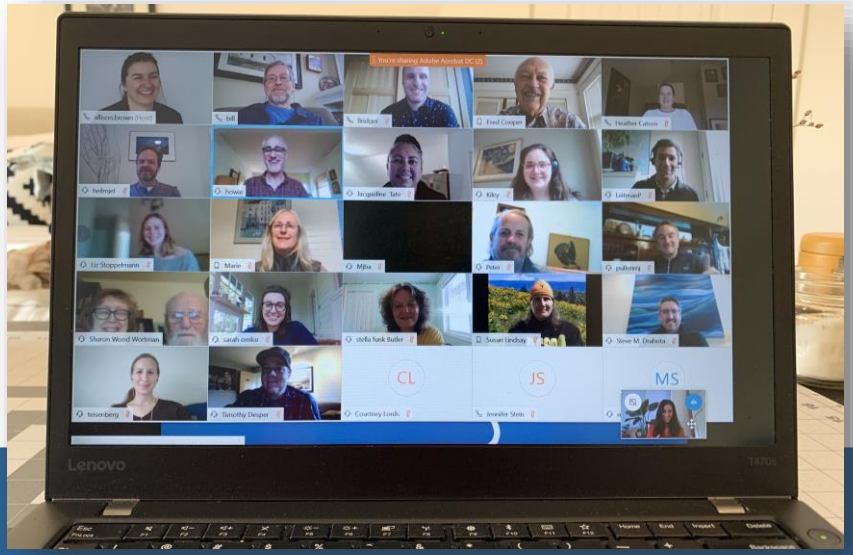
Top comment themes:

- Cost savings
- Construction time savings
- Preservation of Skatepark
- Fewer environmental impacts
- Concerns with traffic impacts, especially for motor vehicles
- Concerns with overburdening neighboring bridges

Community Task Force Update

EARTHQUAKE READY BURNSIDE BRIDGE

Community Task Force



DISCUSSION

Policy Group Decision

Preferred Alternative

Do you approve the Community Task Force's recommendation on a Preferred Alternative:

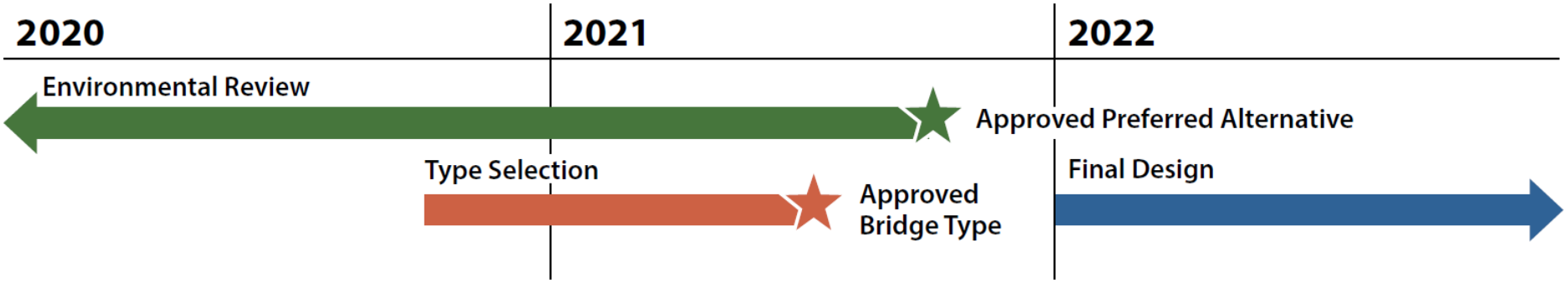
- **Replacement Long Span Bridge**
- **Full Bridge Closure**

BREAK

Bridge Type Selection Phase

Overview

Schedule



Type Selection Phase Decisions (TS)

- Provide preliminary design information for federal permitting (by June, 2021)
- Select bridge "form" (i.e., fixed and movable bridge types)
- Develop preliminary Visual Design Guidelines

Final Design Phase Decisions (FD)

- Perform detailed bridge design
- Implement the Visual Design Guidelines

Bridge Type Selection Phase

EARTHQUAKE READY BURNSIDE BRIDGE

Overview

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, Oregon


Copper River Bridge, South Carolina


Tilikum Crossing Bridge, Oregon

BRIDGE TYPE OPTION: Through Truss examples


Main Street Bridge, Florida


Triborough (Harlem River) Bridge, New York


Tower Bridge, CA


Broadway Bridge, Oregon


Hawthorne Bridge, Oregon

MOVABLE SPAN: Bascule examples


South Park Bridge, Washington


Harbor Bridge, Spain


New Johnson St. Bridge, Canada


Woodrow Wilson Bridge, Maryland

MOVABLE SPAN: Vertical Lift examples


Teregganu Bridge, Malaysia


Fore River Bridge, Massachusetts

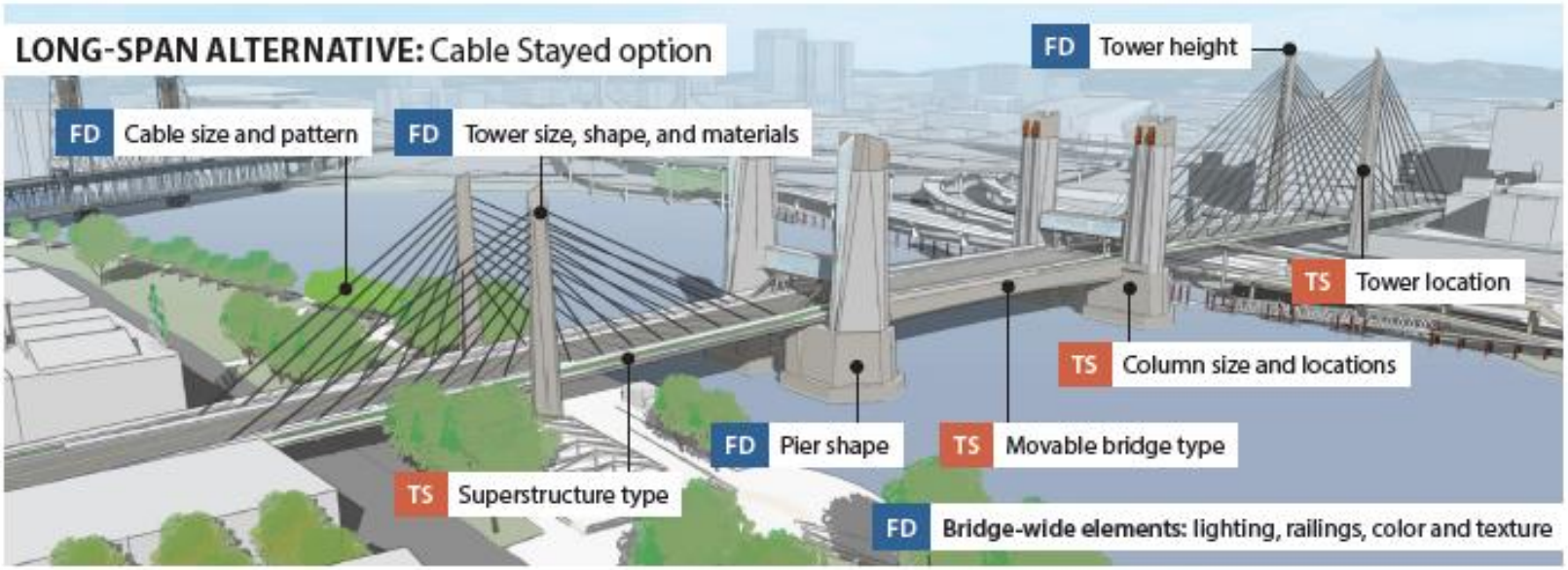

Pont Jacques Chaban, Delmas

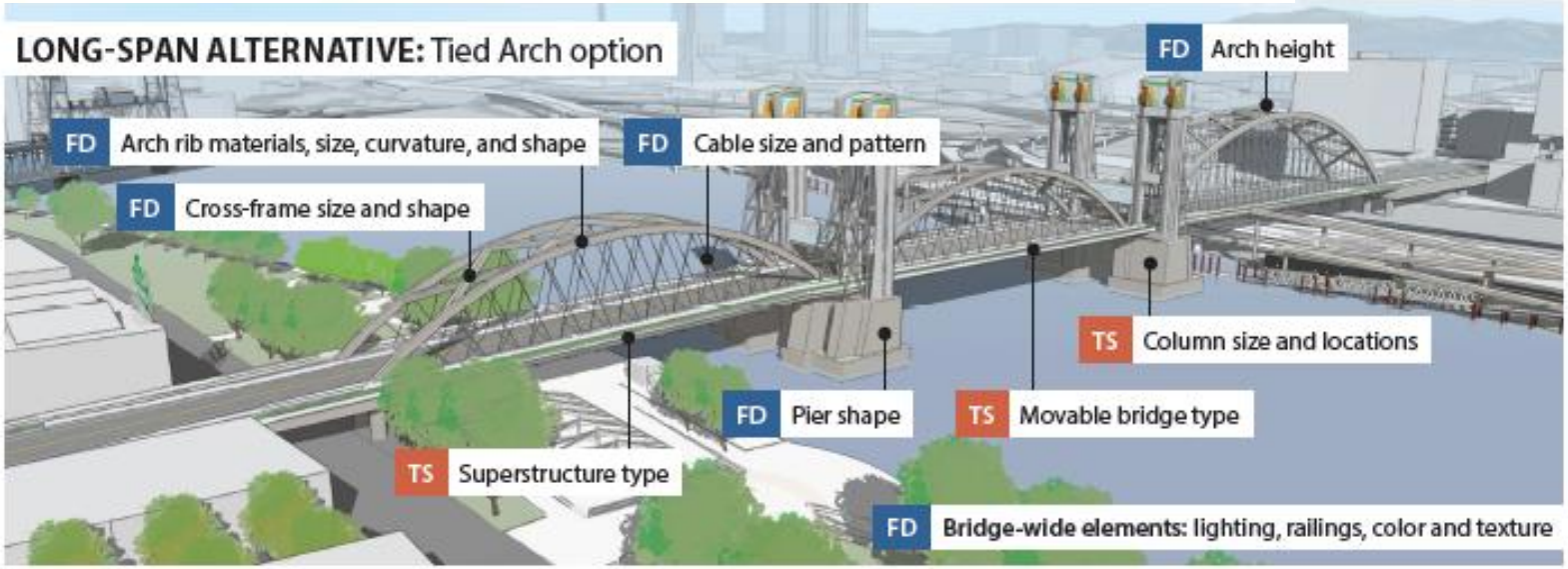

Manchester Millenium Bridge, England

Bridge Type Selection Phase

EARTHQUAKE READY BURNSIDE BRIDGE

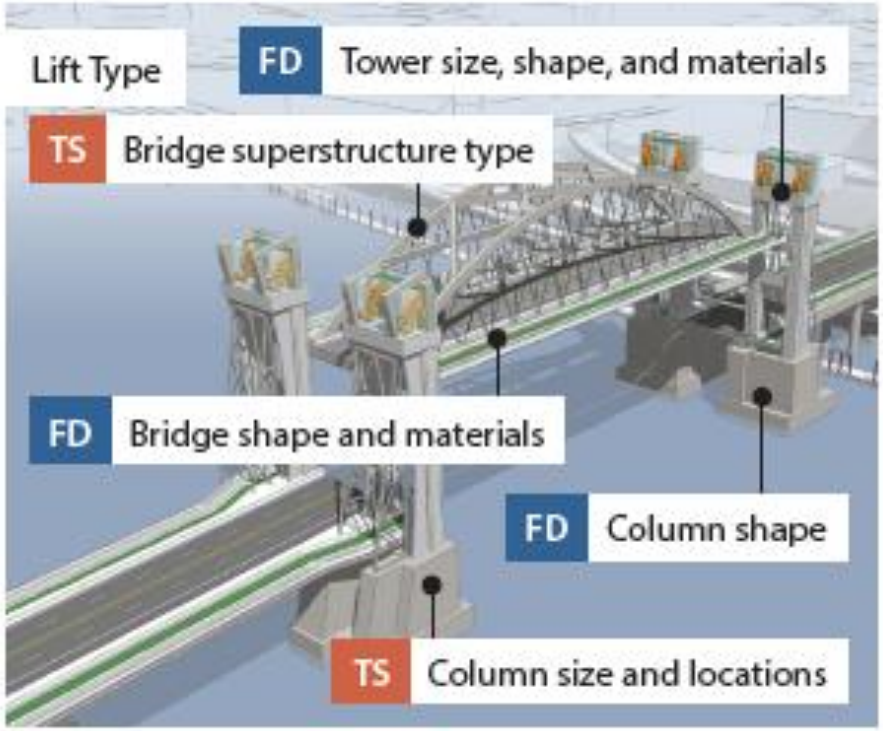
Overview

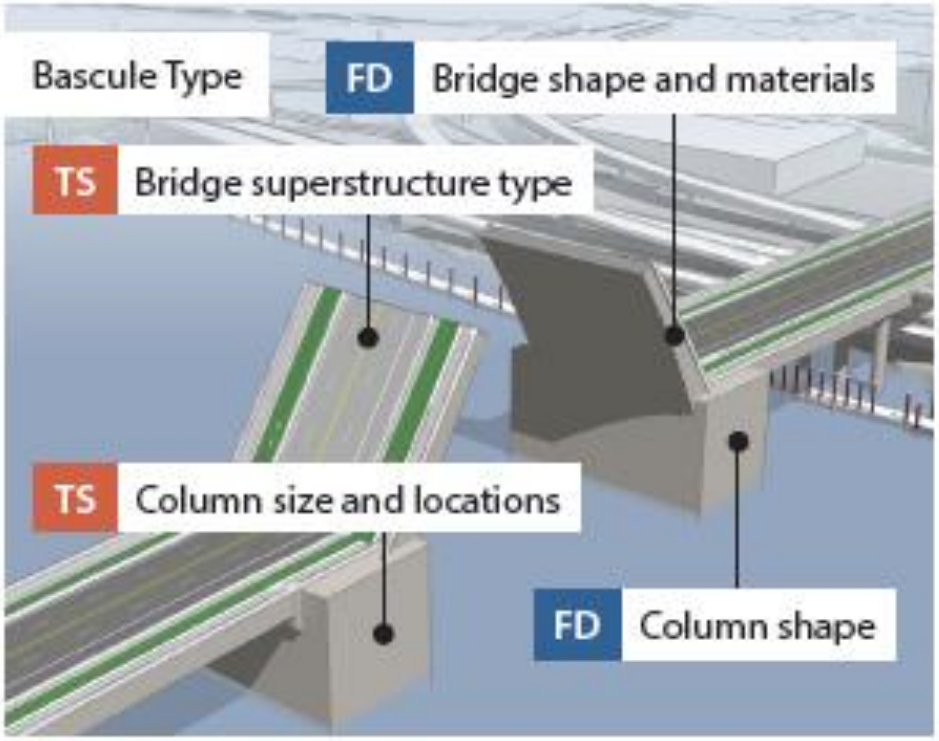




Bridge Type Selection Phase

Overview



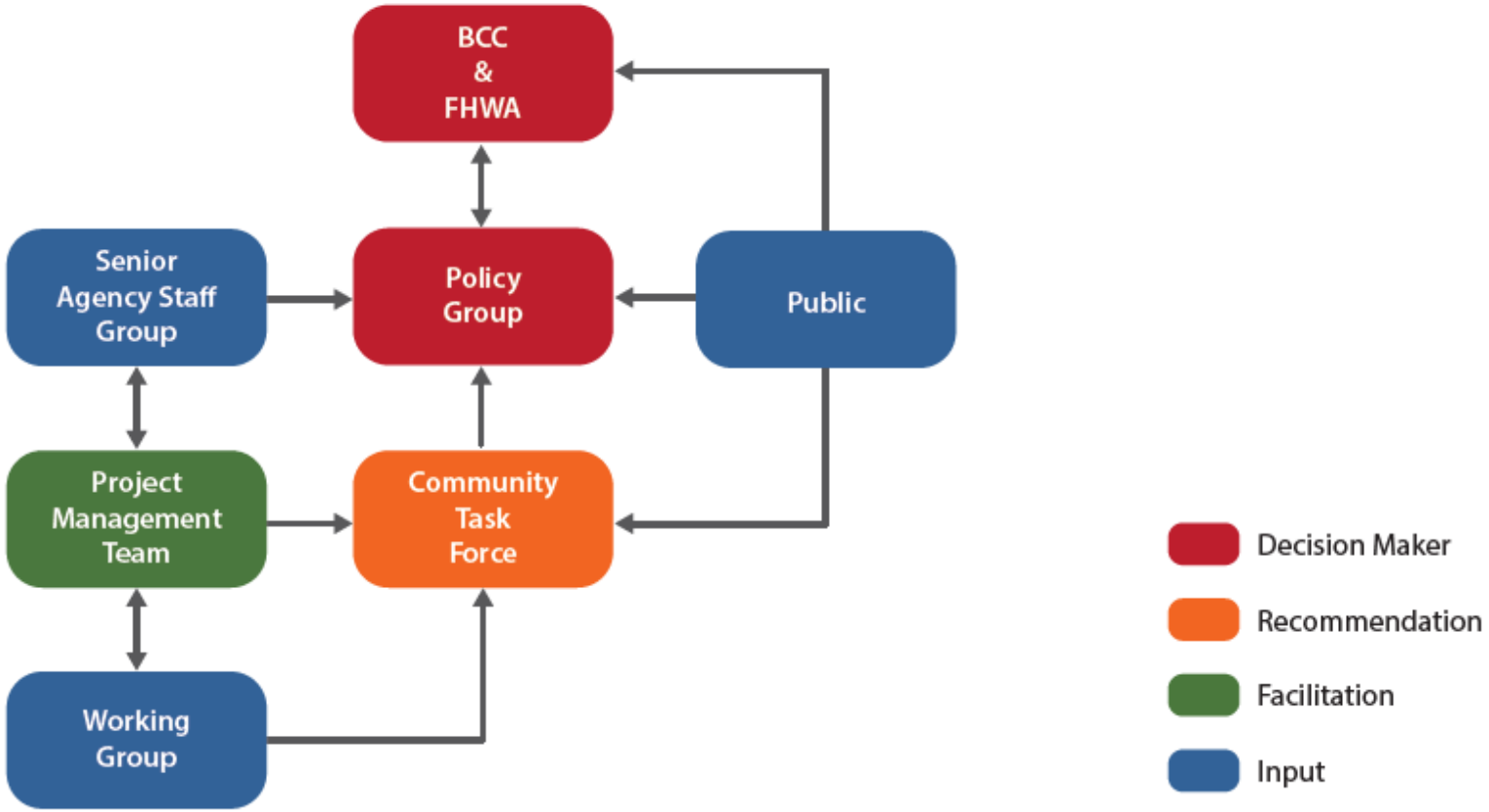


Bridge Type Selection Phase

EARTHQUAKE READY BURNSIDE BRIDGE

Process

Decision Making Structure



Bridge Type Selection Phase

EARTHQUAKE READY BURNSIDE BRIDGE

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:

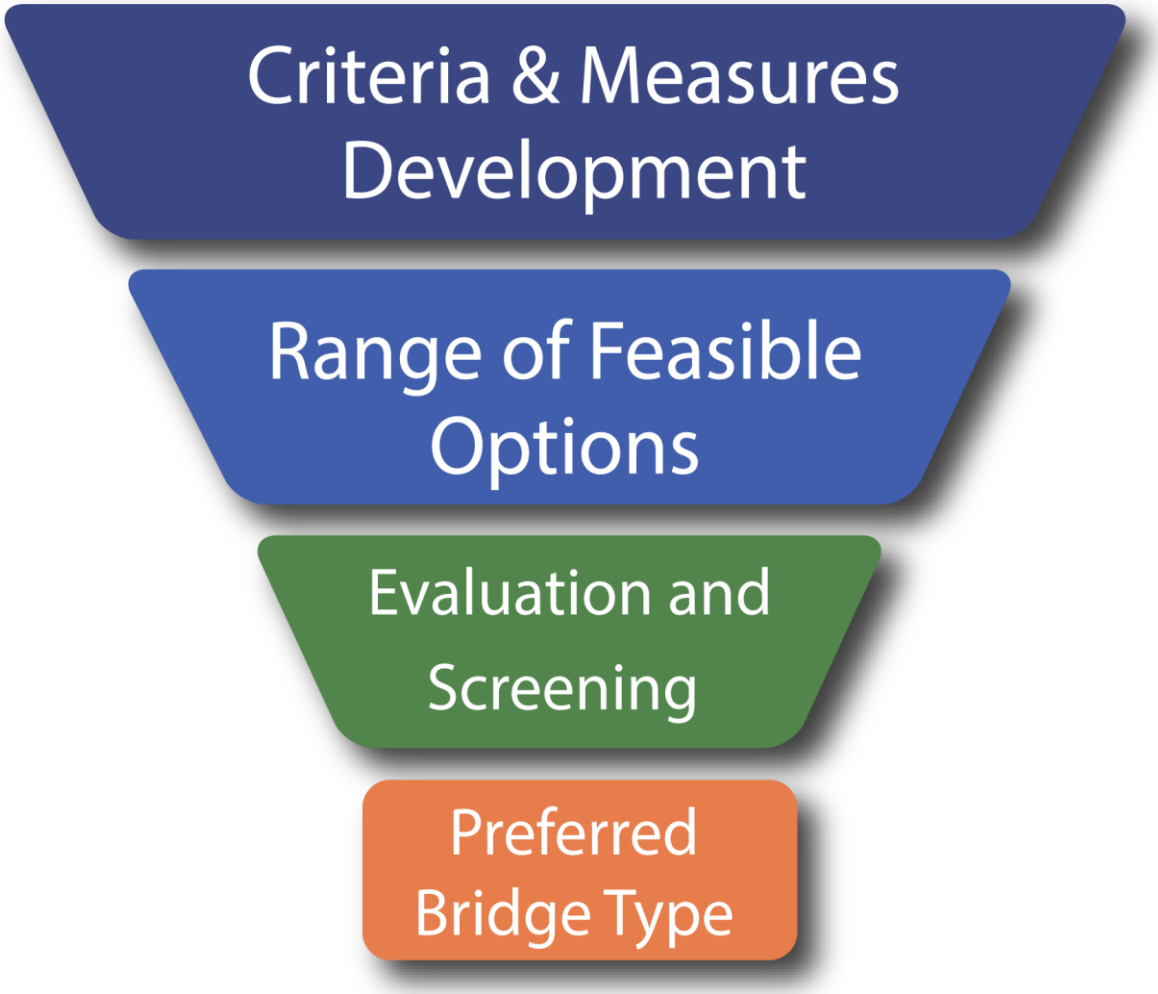
- Type Selection Evaluation Criteria and Measures
- Technical Data to support the evaluation process

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

Bridge Type Selection Phase

EARTHQUAKE READY BURNSIDE BRIDGE

Process

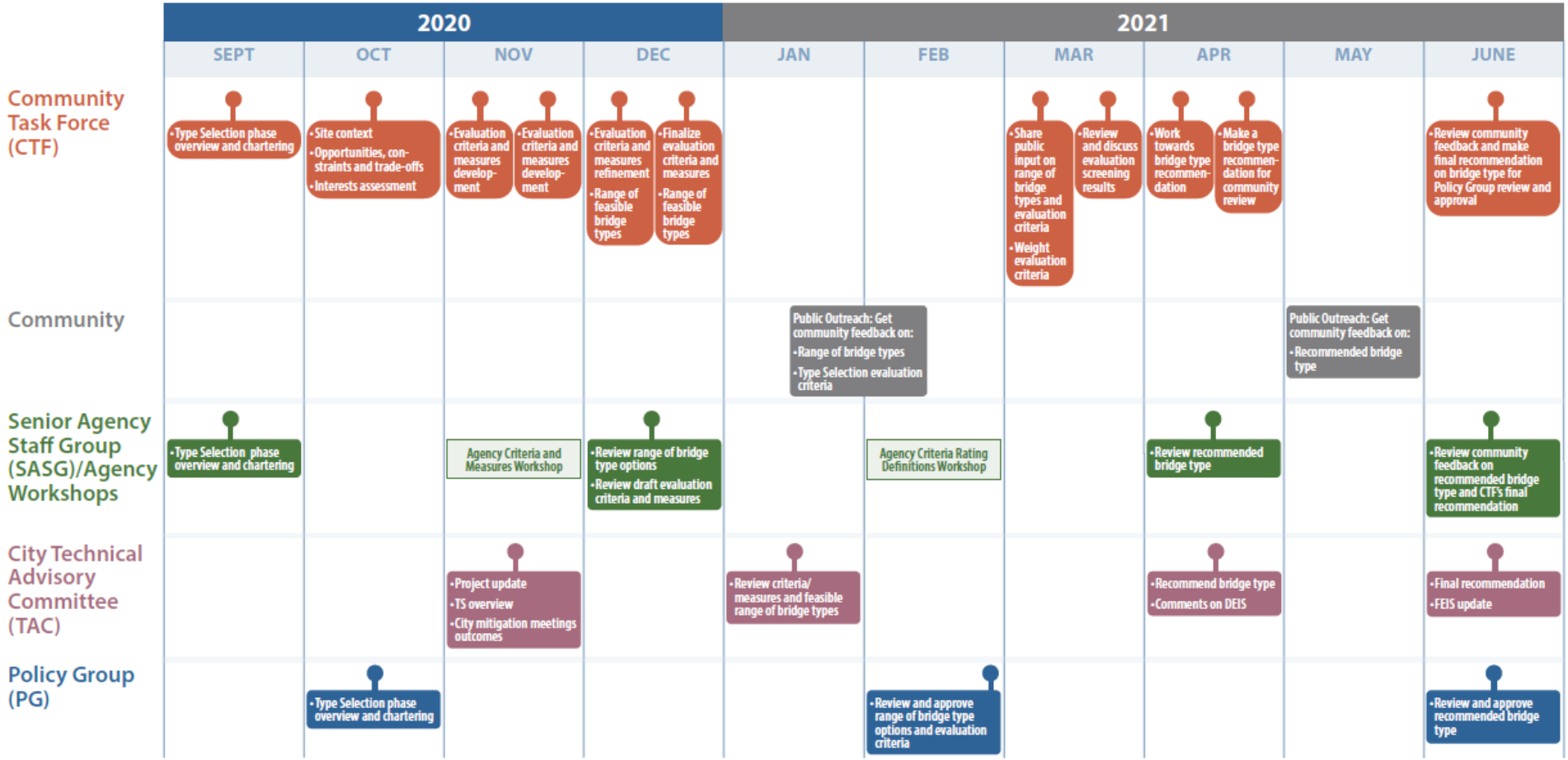


**Preferred Bridge Type included in Final Environmental Impact Statement*

Bridge Type Selection Phase

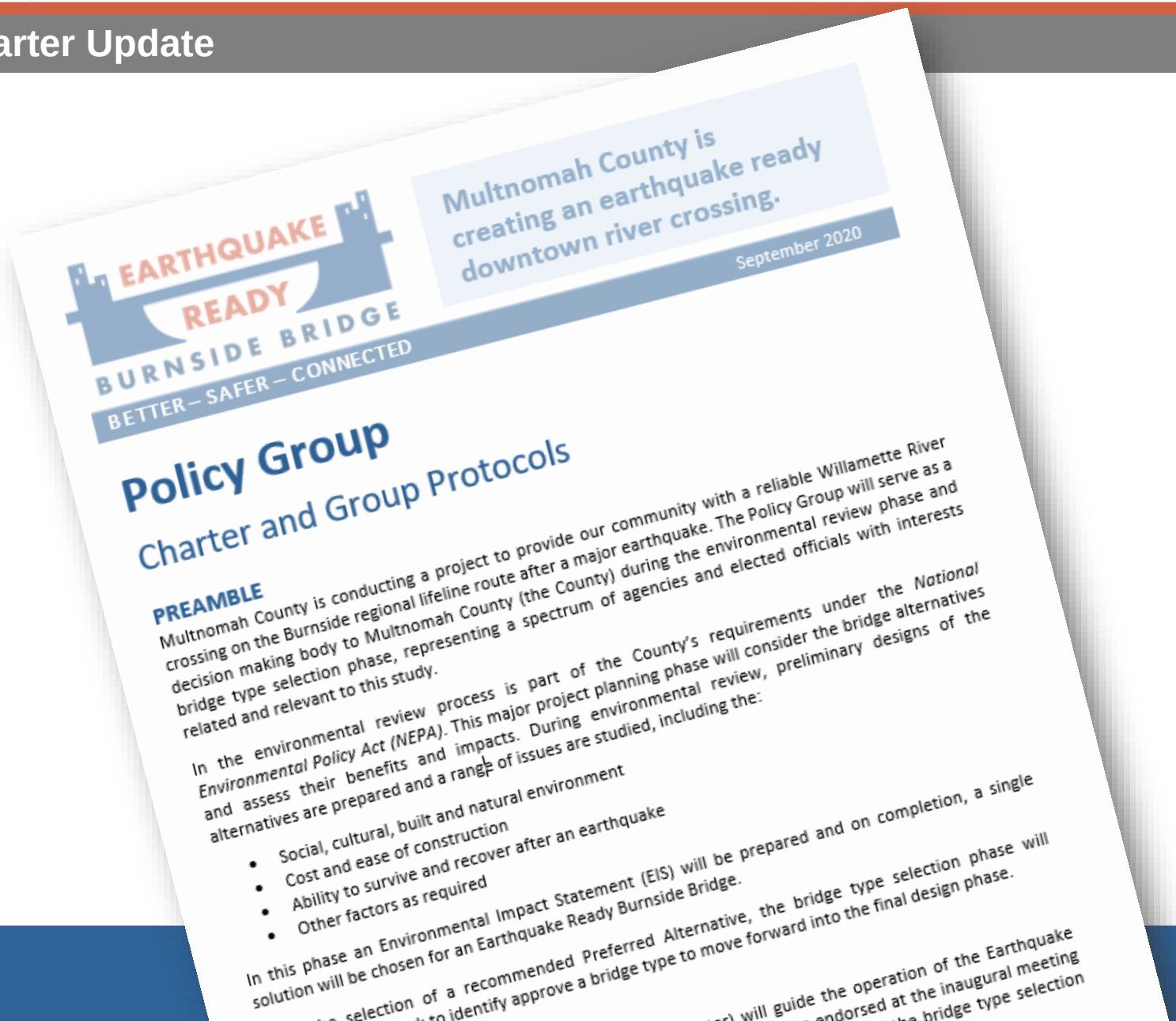
EARTHQUAKE READY BURNSIDE BRIDGE

Detailed Workplan



Bridge Type Selection Phase

CTF Charter Update



EARTHQUAKE READY BURNSIDE BRIDGE

BETTER – SAFER – CONNECTED

Multnomah County is creating an earthquake ready downtown river crossing.

September 2020

Policy Group

Charter and Group Protocols

PREAMBLE

Multnomah County is conducting a project to provide our community with a reliable Willamette River crossing on the Burnside regional lifeline route after a major earthquake. The Policy Group will serve as a decision making body to Multnomah County (the County) during the environmental review phase and bridge type selection phase, representing a spectrum of agencies and elected officials with interests related and relevant to this study.

In the environmental review process is part of the County's requirements under the *National Environmental Policy Act (NEPA)*. This major project planning phase will consider the bridge alternatives and assess their benefits and impacts. During environmental review, preliminary designs of the alternatives are prepared and a range of issues are studied, including the:

- Social, cultural, built and natural environment
- Cost and ease of construction
- Ability to survive and recover after an earthquake
- Other factors as required

In this phase an Environmental Impact Statement (EIS) will be prepared and on completion, a single solution will be chosen for an Earthquake Ready Burnside Bridge.

selection of a recommended Preferred Alternative, the bridge type selection phase will to identify approve a bridge type to move forward into the final design phase.

will guide the operation of the Earthquake endorsed at the inaugural meeting bridge type selection

Next Steps

Upcoming Meetings and Outreach

- **October 26:** Community Task Force Meeting
- **January/February 2021:** Draft Environmental Impact Statement Publication
- **January/February 2021:** Bridge Type Selection Outreach – Range of Bridge Options and Criteria Topics
- **February 2021:** Policy Group Meeting – Approve Criteria and Range of Bridge Types
- **June 2021:** Policy Group Meeting – Approve Bridge Type

Closing Remarks and Adjourn

Thank you!