EARTHQUAKE READY BURNSIDE BRIDGE

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

BETTER – SAFER – CONNECTED March 31, 2020

Senior Agency Staff Group – Agenda Meeting #11

Project:	Earthquake Ready Burnside Bridge
Subject:	Senior Agency Staff Group Meeting #11
Date:	Tuesday, March 31, 2020
Time:	*(2:45 p.m. Early Arrival)* 3:00 – 5:00 p.m.
Location:	WebEx Virtual Meeting

SASG MEMBERS

Mark Lear, Portland Bureau of Transportation
Brian Monberg, City of Gresham
Chris Deffebach, Washington County
Malu Wilkinson, Metro
Mike Bezner, Clackamas County
Steve Witter, TriMet
Mike Morrow, FHWA
Sam Hunaidi, ODOT
Amanda Kraus, Sen. Kathleen Taylor's Office
Dan Bower, Portland Streetcar
Greg Theisen, Port of Portland
Zoe Bluffstone, Rep. Smith Warner's Office
Jean Senechal Biggs, City of Beaverton
Brett Horner, Portland Parks Bureau

PROJECT TEAM INVITES

Ian Cannon, MultCo
Megan Neill, MultCo
Liz Smith Currie, MultCo
Chris Fick, MultCo
Mike Pullen, MultCo
Heather Catron, HDR
Steve Drahota, HDR
Cassie Davis, HDR
Jeff Heilman, Parametrix
Joey Posada, EnviroIssues

Purpose:

1. Provide an update on the project and key activities since the SASG last met.
2. Share results of Community Task Force weightings process and next steps in getting to a recommended Preferred Alternative.
3. Share a common understanding of the purpose of the Joint-Agency Ratings Workshop.
4. Review and discuss what the team is learning about the technical analysis.

Agenda:

Time	Topic	Lead
2:45 p.m.	*Early Arrival – join WebEx meeting platform early to get familiar and situated.*	*All*
3:00 p.m.	Welcome and Introductions	Heather Catron
3:15 p.m.	Project Update • PG Approval of Range of Alts, Cross Sections, Evaluation Criteria, Traffic Management • Timeline • Funding Update • Working/Focus Groups • Stakeholder Briefings	Heather Catron / Team
3:30 p.m.	Technical Updates • Long-span Option • CR-AVE Highlights • Transportation Analysis	Steve Drahota
3:50 p.m.	CTF Update • Getting to a PA Recommendation - Timeline • Weightings	Heather Catron / Steve Drahota
4:00 p.m.	Joint-Agency Criteria and Measures Ratings Workshop	Jeff Heilman
4:15 p.m.	Environmental Technical Reports • Early Findings • Report Reviews Status	Jeff Heilman / Steve Drahota
4:45 p.m.	Upcoming Meetings and Next Steps	Heather Catron
5:00 p.m.	Adjourn	All

EQRB Stakeholder Briefings Tracking Log

Date	Stakeholder (Organization/Affiliate)
COMPLETED	
15-Feb-19	National Association of Minority Contractors - Oregon
15-Feb-19	Native American Youth and Family Center
22-Feb-19	Join
28-Feb-19	A Home for Everyone
4-Mar-19	Ride Connection
5-Mar-19	Voz
15-Mar-19	Immigrant and Refugee Community Organization
22-May-19	Central Eastside Industrial Council (CEIC) Transportation and Parking Advisory Committee
31-May-19	Burnside Skatepark
7-Jun-19	Coalition of Communities of Color
11-Jun-19	Templeton Property Management; RJ Templeton building
13-Jun-19	Beam Development (Eastside Exchange Building)
13-Jun-19	Pacific Coast Fruit Company
17-Jun-19	FPI Management; The Yard building
19-Jun-19	Oregon Nikkei Legacy (Japanese Historical Plaza)
10-Jul-19	Portland Saturday Market
11-Jul-19	AMR
12-Jul-19	Gerding Edlen; 5 MLK building
16-Jul-19	University of Oregon
17-Jul-19	Portland Rescue Mission
18-Jul-19	Portland Rose Festival
18-Jul-19	Central City Concern
23-Jul-19	Mercy Corps
30-Jul-19	Salvation Army - Female Emergency Shelter
31-Jul-19	Prosper Portland - Staff
31-Jul-19	Rose City Transportation
1-Aug-19	Urban Development + Partners
6-Aug-19	Portland Parks Board (subcommittee)
6-Aug-19	Key Development
8-Aug-19	Coalition of Communities of Color
12-Aug-19	East Multnomah County Transportation Committee
14-Aug-19	MultCo BPCAC
20-Aug-19	Portland Business Alliance
22-Aug-19	Night Strike
23-Aug-19	Native American Rehabilitation Association
27-Aug-19	CB Richard Ellis; Old Town Storage Building
3-Sep-19	MultCo Cascadia Preparedness Advocates Group
4-Sep-19	Old Town Community Association
5-Sep-19	Portland Freight Advisory Council
5-Sep-19	Go Lloyd
9-Sep-19	Historic Landmarks Commission
10-Sep-19	Portland Bike Advisory Committee
11-Sep-19	Lower Columbia Region Harbor Safety Committee
12-Sep-19	Pearl District Neighborhood Association
12-Sep-19	Regional Public Information Officers
13-Sep-19	Portland Parks Director
17-Sep-19	Portland Pedestrian Advisory Committee
17-Sep-19	City Club's Earthquake Resilience Advocacy Committee
18-Sep-19	Kerns Neighborhood Association
19-Sep-19	Portland Design Commission
20-Sep-19	MultCo DCHS
24-Sep-19	Downtown Neighborhood Association

EQRB Stakeholder Briefings Tracking Log

Date	Stakeholder (Organization/Affiliate)
1-Oct-19	Getting There Together
2-Oct-19	Frog Ferry
3-Oct-19	Clackamas County Coordinating Committee
3-Oct-19	WCCC Transportation Advisory Commitee
7-Oct-19	Region 1 Area Commission on Transportation
9-Oct-19	MultCo Sustainability Committee
14-Oct-19	WashCo Coordinating Committee
18-Oct-19	Dr. Lucy Jones
22-Oct-19	Downtown Neighborhood Association
28-Oct-19	MultCo Disability Services Advisory Council
29-Oct-19	Metro Councilors (small group briefing)
5-Nov-19	Gresham Chamber & Visitors Center
7-Nov-19	The Yard/FPI Management
15-Nov-19	Asian Pacific American Network of Oregon (APANO)
20-Nov-19	East Portland Chamber of Commerce
21-Nov-19	Vancouver Baptist Church
25-Nov-19	Portland Parks Senior Management Team
26-Nov-19	Native American Youth and Family Center
2-Dec-19	Coalition of Communities of Color
2-Dec-19	Verde
3-Dec-19	MultCo REACH/ACHIEVE Program Staff
11-Dec-19	Business for a Better Portland (Subgroup)
19-Dec-19	Portland City Council
8-Jan-19	MultCo REACH / ACHIEVE Program Committee
8-Jan-20	Venerable Properties
10-Jan-19	Portland Saturday Market
13-Jan-20	Metro RSTIC Open House
15-Jan-19	Burnside Skatepark
16-Jan-19	Japanese Museum of Oregon (formerly Nikkei Legacy)
23-Jan-20	Portland Rescue Mission
27-Jan-20	Central City Concern
5-Feb-20	Society of American Military Engineers
6-Feb-20	University of Oregon
7-Feb-20	Voz
21-Feb-20	Asian Pacific American Network of Oregon (APANO)
4-Mar-20	Immigrant and Refugee Community Organization
10-Mar-20	Laurelhurst Neighborhood Association

EARTHQUAKE READY BURNSIDE BRIDGE

GETTING TO A PREFERRED ALTERNATIVE

BETTER – SAFER – CONNECTED

March 2020

2019	2020												2021	
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB
CTF Develop criteria & measures		CTF Weight criteria by topic CTF Weight long term and short term impacts		CTF Review draft technical report findings	CTF Alternatives evaluation results review	CTF Alternatives evaluation results review and recommend PA			CTF Review community input & finalize recommended PA for PG					
SASG Review & input on criteria & measures			SASG Review CTF assigned weightings on criteria and measures	WORKSHOP Agency workshop to review ratings (CTF members invited)	TAC Alternatives Evaluation Results Review	SASG Review CTF recommended PA			SASG Review community input & recommended PA for PG					
COMMUNITY Review & input on criteria & measures								COMMUNITY Review & input on: • early environmental study findings • results of alternatives evaluation & the recommended PA				COMMUNITY Publish DEIS for agency & community review & formal comment		
PG Review & approval of criteria										PG PG approval: recommended PA for DEIS publication				

Legend:

PA	Preferred Alternative
DEIS	Draft Environmental Impact Statement
CTF	Community Task Force
SASG	Senior Agency Staff Group
PG	Policy Group
TAC	Technical Advisory Committee

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

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

BETTER – SAFER – CONNECTED April 21 and 22, 2020

Joint Agency Evaluation Criteria Ratings Workshop

Project:	Earthquake Ready Burnside Bridge
Subject:	Joint Agency Evaluation Criteria Workshop
Date:	April 21 and 22, 2020
Time:	*Please attend relevant sessions times*
Location:	HDR, 1050 SW 6th Ave, Portland, OR – 17th Floor Downing Room

PURPOSE

- To partner with agency representatives to obtain feedback on rating definitions for the evaluation measures.

AGENDA

- Each session will cover:
  - Welcome and Introductions
  - Evaluation Criteria and Measures Overview
  - Ratings Discussion
  - Next Steps/Action Items

DAY 1: TUESDAY, APRIL 21, 2020

Time	Session Topics	Session Leads
8:50-9:00 (10 min)	*Arrivals and Check-in (at 18th Floor Reception)*	
9:00-10:00 (60)	**Seismic Resiliency**	Drahota
10:00-10:10 (10)	*Session Rotation*	
10:10-11:10 (60)	**Fiscal Responsibility**	Drahota
11:10-11:20 (10)	*Session Rotation*	
11:20-12:20 (60)	**Motor Vehicles, Freight and Emergency Vehicles**	Drahota
12:20-1:00 (40)	*Session Rotation and Lunch Break*	
1:00-2:00 (60)	**Pedestrian, Bikes and People with Disability**	Drahota
2:00-2:10 (10)	*Session Rotation and Afternoon Break*	
2:10-3:10 (60)	**Transit**	Drahota
3:10-3:20 (10)	*Session Rotation*	
3:20-4:20 (60)	**Business and Economy**	Heilman

DAY 2: WEDNESDAY, APRIL 22, 2019

Time	Topic	Session Leads
8:20-8:30 (10 min)	*Arrivals and Check-in (at 18th Floor Reception)*	
8:30-9:30 (60)	**Crime Reduction and Personal Safety**	Heilman
9:30-9:40 (10)	*Session Rotation*	
9:40-10:40 (60)	**Community Quality of Life**	Heilman
10:40-10:50 (10)	*Session Rotation*	
10:50-11:50 (60)	**Environmental Justice and Equity**	Heilman
11:50-12:30 (40)	*Afternoon Break and Session Rotation*	
12:30-1:30 (60)	**Natural Resources, Climate Change and Sustainability**	Heilman
1:30-1:40 (10)	*Session Rotation*	
1:40-2:40 (60)	**Parks and Recreation Resources**	Heilman
2:40-2:50 (10)	*Session Rotation*	
2:50-3:50 (60)	**Historic Resources**	Heilman
3:50-4:00 (10)	*Session Rotation*	
4:00-5:00 (60)	**Visual and Aesthetics**	Heilman

Earthquake Ready Burnside Bridge

Better. Safer. Connected.

Joint Agency Evaluation Criteria and Measures Workshop - RSVP's

DAY ONE - TUESDAY, 4/21	
Attendees	**Organization**
8:50-9:00 (10 min)	Arrivals and Check-in (at 18th Floor Reception)
9:00-10:00 (60)	**Seismic Resiliency**
Sam Hunaidi	ODOT
Shaneka Owens	FHWA
Anthony Barber	EPA
Mike Saling	Portland Water Bureau
Valarie Higdon	USACE
Patrick Sweeney	City of Portland
Sasha Pollack	Metro
Liantao Xu	ODOT
Robert Devassie	ODOT
Jonna Papaefthimiou	PBOT
10:00-10:10 (10)	Session Rotation
10:10-11:10 (60)	**Fiscal Responsibility**
Sam Hunaidi	ODOT
Shaneka Owens	FHWA
Mike Saling	Portland Water Bureau
Valarie Higdon	USACE
Patrick Sweeney	City of Portland
Liantao Xu	ODOT
Robert Devassie	ODOT
11:10-11:20 (10)	Session Rotation
11:20-12:20 (60)	**Motor Vehicles, Freight and Emergency Vehicles**
David Warrick	ODOT
Sam Hunaidi	ODOT
Shaneka Owens	FHWA
Matt Kelly	PDOT
Anthony Barber	EPA
Mike Saling	Portland Water Bureau
Valarie Higdon	USACE
Patrick Sweeney	City of Portland
Roger Geller	City of Portland
Alex Oreschak	Metro
Liantao Xu	ODOT
Zachary Horowitz	ODOT
Robert Devassie	ODOT
Wendy Cawley	PBOT
12:20-1:00 (40)	Session Rotation and Lunch Break
1:00-2:00 (60)	**Pedestrian, Bikes and People with Disability**
Sam Hunaidi	ODOT
Peter Finley Fry	CTF Member
Shaneka Owens	FHWA
Matt Kelly	PDOT
Mike Saling	Portland Water Bureau
Valarie Higdon	USACE
Tate White	Portland Parks
Patrick Sweeney	City of Portland
Roger Geller	City of Portland
Art Graves	CTF Member
Alex Oreschak	Metro
Liantao Xu	ODOT
Zachary Horowitz	ODOT
Robert Devassie	ODOT
Wendy Cawley	PBOT
2:00-2:10 (10)	Session Rotation and Afternoon Break
2:10-3:10 (60)	**Transit**
Sam Hunaidi	ODOT
Peter Finley Fry	CTF Member
Shaneka Owens	FHWA
Mike Saling	Portland Water Bureau
Max Bernstein	ODOT
Valarie Hugdon	USACE
Patrick Sweeney	City of Portland
Alex Oreschak	Metro
Liantao Xu	ODOT
Zachary Horowitz	ODOT
Robert Devassie	ODOT
Wendy Cawley	PBOT
3:10-3:20 (10)	Session Rotation
3:20-4:20 (60)	**Business and Economics**
Peter Finley Fry	CTF Member
Shaneka Owens	FHWA
Mike Saling	Portland Water Bureau
Max Bernstein	ODOT
Valarie Hugdon	USACE
Tate White	Portland Parks
Patrick Sweeney	City of Portland
Robert Devassie	ODOT

DAY TWO - WEDNESDAY, 4/22	
Attendees	**Organization**
8:20-8:30 (10 min)	Arrivals and Check-in (at 18th Floor Reception)
8:30-9:30 (60)	Crime Reduction and Personal Safety
Anthony Barber	EPA
Valarie Higdon	USACE
Tate White	Portland Parks
Patrick Sweeney	City of Portland
Ian Yee	Janus Youth Programs
Dennis Lundberg	Janus Youth Programs
Robert Devassie	ODOT
9:30-9:40 (10)	Session Rotation
9:40-10:40 (60)	Community Quality of Life
Anthony Barber	EPA
Valarie Higdon	USACE
Tate White	Portland Parks
Patrick Sweeney	City of Portland
Ian Yee	Janus Youth Programs
Dennis Lundberg	Janus Youth Programs
Robert Devassie	ODOT
10:40-10:50 (10)	Session Rotation
10:50-11:50 (60)	Environmental Justice and Equity
Sam Hunaidi	ODOT
Shaneka Owens	FHWA
Anthony Barber	EPA
Max Bernstein	ODOT
Valarie Higdon	USACE
Patrick Sweeney	City of Portland
Ian Yee	Janus Youth Programs
Dennis Lundberg	Janus Youth Programs
Dave Nunamaker	BES
Robert Devassie	ODOT
11:50-12:30 (40)	Afternoon Break and Session Rotation
12:30-1:30 (60)	Natural Resources, Climate Change and Sustainability
Sam Hunaidi	ODOT
Peter Finley Fry	CTF Member
Anthony Barber	EPA
Thomas Loynes	ODOT
Valarie Higdon	USACE
Patrick Sweeney	City of Portland
Roger Geller	City of Portland
Joe Severson	OSMB
Dave Nunamaker	BES
Robert Devassie	ODOT
1:30-1:40 (10)	Session Rotation
1:40-2:40 (60)	Parks and Recreation Resources
Sam Hunaidi	ODOT
Peter Finley Fry	CTF Member
Anthony Barber	EPA
Brett Horner	Portland Parks and Rec
Valarie Higdon	USACE
Tate White	Portland Parks
Patrick Sweeney	City of Portland
Art Graves	CTF Member
Joe Severson	OSMB
Josh Carlson	Mayer/Reed
Robert Devassie	ODOT
2:40-2:50 (10)	Session Rotation
2:50-3:50 (60)	Historic Resources
Sam Hunaidi	ODOT
Magnus Bernhardt	ODOT
Peter Finley Fry	CTF Member
Kristen Scheidt	USACE
Valarie Higdon	USACE
Patrick Sweeney	City of Portland
Art Graves	CTF Member
Hillary Adam	BDS
David Ellis	
Josh Carlson	Mayer/Reed
Robert Devassie	ODOT
3:50-4:00 (10)	Session Rotation
4:00-5:00 (60)	Visual and Aesthetics
Magnus Bernhardt	ODOT
Sam Hunaidi	ODOT
Peter Finley Fry	CTF Member
Valarie Higdon	USACE
Patrick Sweeney	City of Portland
Art Graves	CTF Member
Hillary Adam	BDS
Josh Carlson	Mayer/Reed
Robert Devassie	ODOT

EARTHQUAKE READY BURNSIDE BRIDGE

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

BETTER – SAFER – CONNECTED

December 11, 2019

Evaluation Criteria and Measures

Introduction

In June 2019, the Earthquake Ready Burnside Bridge (EQRB) Community Task Force (CTF) recommended draft evaluation criteria topics, based on information available at the time. Since then, at their July and August meetings, the CTF reviewed the draft criteria as well as draft measures for implementing them, and tentatively approved criteria and measures on 8/19/19.

The project team has since gathered input on the CTF's draft criteria and measures from other agency staff and stakeholders. At the CTF's 10/21/19 meeting, the input on the criteria was reviewed and approved for recommendation to the Policy Group. The Policy Group approved the criteria at their 10/28/19 meeting. The CTF then reviewed recommended changes to the measures from agency staff and stakeholders at their 12/2/19 meeting. The criteria and measures will be used to help select a Preferred Alternative during the preparation of the Draft EIS.

Notes on Measures and Scoring:

- Net Effect and Mitigation: Many criteria refer to "minimizing" impacts while others refer to "maximizing" benefits, whereas a few refer to "net benefits" (a combination of adverse and beneficial effects). For any criterion where the DEIS analysis reveals a meaningful "net effect" this can be included in the way that Measures are applied, even where "net effect" is not specifically mentioned in the criterion. When rating the alternatives, the scoring will consider the net effect, including the potential for, feasibility of, and level of commitment to mitigation that would avoid or reduce adverse impacts.
- Tradeoffs across Criteria: Minimizing adverse impacts to resources evaluated in one criterion could result in increasing adverse impacts to resources evaluated in another criterion. Each Measure for each criterion will be evaluated independently of the other criteria, so that where there are tradeoffs or conflicts, the combined effect across different criteria will be reflected in the total score for a given alternative.
- While some of the evaluation criteria are intended to measure the extent to which alternatives would implement certain regulatory objectives, the evaluation criteria are not intended to replace or supersede any relevant regulatory requirements. It is assumed that any selected alternative would need to comply with relevant regulatory requirements.

Criteria Groups

1. Seismic Resiliency

Long Term	**1a.1 Maximize confidence in post-earthquake crossing operability and reparability.** • *Measure: Qualitative assessment for how much reliance on original components is needed for seismic resiliency.* • *Measure: Ability to implement reliable seismic performance mechanisms and devices.* **1a.2 Maximize ability for all modes to use the crossing post-earthquake.** • *Measure: Ability to accommodate over-dimensional vehicles and loads.* • *Measure: Ability to simultaneously accommodate all travel modes.* **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.** • *Measure: Quantify level of risk exposure from adjacent buildings, weighting those alternatives that are at risk due to URM exposure from adjacent buildings at a higher risk.*
During Const.	**1b.1 Minimize delay in achieving a seismically resilient crossing.** • *Measure: Estimated duration of construction*

2. Community Quality of Life (includes Indirect Land Use Impacts and Community Resources)

Long Term	**2a.1 Minimize long-term noise and light/shadow impacts.** • *Measure: Qualitative assessment of light/shadow impacts due to changes in roadway alignments relative to land uses (e.g., will new alignment direct headlights at or away from residential uses; will it change sunlight/shadow on residential or community spaces?).* • *Measure: Assessment of noise impacts due to changes in roadway alignments relative to land uses.* **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.).** • *Measure: Number of community facilities impacted, as well as magnitude and character of those impacts (Note: metrics for these two measures may include duration of impact, distance to temporary relocation, number of people affected, or other metrics as appropriate to the facility, event, and impact).* • *Measure: Number of community events impacted, as well as magnitude and character of those impacts. (See note for above Measure).*
During Const.	**2b.1 Minimize temporary impacts to community facilities and events under and near the bridge.** • *Measure: Number of community facilities impacted, as well as magnitude and duration of those impacts. (Note: metrics for these two measures may include duration of impact, distance to temporary relocation, number of people affected, or other metrics as appropriate to the facility, event, and impact).* • *Measure: Number of community events impacted, as well as magnitude and duration of those impacts. (See note for above Measure).*

3. Equity and Environmental Justice (includes Social Services)

Long Term

3a.1 Minimize displacements of emergency beds.

- *Measure: Shelter beds displaced.*

3a.2 Maintain social service providers' long-term ability to provide current level of service and potential for enhancement.

- *Measure: Social service provider functions (not including beds) displaced (measured in square feet displaced, number of clients served by displaced function, and availability and quality of replacement functions; quality of replacement includes ability to replace the function within the affected service provider, transit access, walking distance/time and dependence of remaining services on being proximate to the services that would be displaced).*
- *Measure: Permanent access impacts (number and significance), and availability and quality of alternative access (distance/convenience to alternative access).*
- *Measure: Impact on ability of existing services to be enhanced, compared to No-build.*

3a.3 Avoid disproportionate adverse impacts to vulnerable and Environmental Justice communities.

- *Measure: Based on qualitative analysis of impacts to low income and minority populations as measured in the analysis of compliance with the Exec Order on Environmental Justice.*
- *Measure: Based on qualitative analysis of impacts to other vulnerable populations as identified during outreach conducted for the Diversity, Equity, and Inclusion program outreach.*

During Const.	**3b.1 Minimize temporary impacts to social service providers.** • *Measure: Social service provider functions temporarily displaced (measured in square feet displaced, number of clients served by displaced function, and availability and quality of temporary replacement functions; quality of replacement includes ability to replace the function within the social service provider affected, transit travel time, walking distance/time and dependence of remaining services on being proximate to the services that would be temporarily displaced).* • *Measure: Temporary access impacts (number, duration, and significance), and availability and quality of alternative access (walking distance/time to alternative locations).* **3b.2 Avoid temporary disproportionate adverse impacts to vulnerable and Environmental Justice communities.** • *Measure: Based on qualitative analysis of impacts to low income and minority populations as measured in the analysis of compliance with the Exec Order on Environmental Justice.* • *Measure: Based on qualitative analysis of impacts to other vulnerable populations as identified during outreach conducted for the Diversity, Equity, and Inclusion program outreach.* **3b.3 Ensure that design and construction approach allow ample opportunities for DBE firms to be involved in the construction/contracting process.** • *Measure: Approximate percentage of the construction work that could potentially be done by DBE (small) firms, relative to DBE goals.*

4. Crime Reduction and Personal Safety

Long Term	**4a.1 Maximize personal safety and crime reduction by following principles of Crime Prevention Through Environmental Design (CPTED).** • *Measure: Qualitative assessment of consistency with the CPTED principle of Natural Surveillance.* • *Measure: Ability of design to allow activated spaces and improved sightlines beneath the bridge.*
During Const.	N/A

5. Business and Economics

Long Term	**5a.1 Minimize business displacements and permanent access impacts.** • *Measure: Number of business displacements (measured in number of businesses, square feet, or number of employees).* • *Measure: Qualitative assessment of permanent access impacts that do not result in full displacement of business (includes number, duration and magnitude of access impacts, and availability and quality of alternative access).* **5a.2 Support redevelopment potential consistent with local plans.** • *Measure: Qualitative assessment of the extent to which newly vacant land is able to support uses that are consistent with local plans (vs creating landlocked parcels or supporting changes in use that are not consistent with local plans).*
During Const.	**5b.1 Minimize temporary access impacts to businesses.** • *Measure: Qualitative assessment of short-term access impacts (includes number, duration and magnitude of short-term access impact, and availability and quality of alternative access).* **5b.2 Minimize temporary regional economic impacts.** • *Measure: Estimated impact of construction on regional economic indicators (e.g., jobs, income, and cost of delay).* • *Measure: Estimated temporary direct and indirect impacts to navigation during construction.* **5b.3 Minimize loss of economic benefits (includes businesses and charities) from temporary impacts to major community events under and near the bridge.** • *Measure: Estimated loss of participation (# of people) in community events that would be impacted; if possible/reliable, estimate the financial impact such as total loss of spending/earnings, or provide qualitative assessment).*

6. Parks and Recreation Resources

Long Term	**6a.1 Minimize park displacements and adverse functionality impacts (include impacts to river recreation).** • *Measure: Assessment of adverse impacts to parks and recreation (e.g., magnitude (square feet) and qualitative assessment of impacts on functions, events, and access (for maintenance, events, etc.).* • *Measure: Qualitative assessment of beneficial impacts (e.g., access, functions, potential to increase Parks revenues, increase resiliency, etc.).*
During Const.	**6b.1 Minimize temporary impacts to parks.** • *Measure: Magnitude (square feet) of temporary parkland displacements.* • *Measure: Assessment of temporary impacts to parks (e.g., magnitude (square feet) and qualitative assessment of impacts on functions, events, access (for maintenance, events, etc.).* • *Measure: Impact of displaced events on Parks revenue.*

7. Historic Resources

Long Term	**7a.1 Minimize historic resource impacts.** • *Measure: Number of resources displaced or damaged (include National Register resources and districts and local historic landmarks and districts) and magnitude/character of impacts.* • *Measure: Number of resources with access, and context, and indirect impacts, and magnitude/character of impacts.* • *Measure: Character and magnitude of impacts to historic districts.*
During Const.	**7b.1 Minimize temporary impacts to historic resources.** • *Measure: Qualitative assessment of construction-related (direct and indirect) impacts to historic resources.*

8. Visual and Aesthetics

Long Term	**8a.1 Minimize adverse impacts to existing views and view corridors.** • *Measure: Qualitative assessment of potential impacts on existing views and view corridors (consider historic districts' design criteria and City-designated view corridors).* • *Measure: Qualitative assessment of potential compatibility/conflicts with existing urban design features.* **8a.2 Maximize-aesthetic experience for all users approaching, on, and under the bridge.** • *Measure: Qualitative assessment of visual and aesthetic opportunities (based on conceptual designs) for users on and under the bridge during both daytime and nighttime hours. Consider opportunities related to scale, forms and materials, viewing, wayfinding, transitions to and from public spaces, lighting/shade/shadows, and activating areas for public use (consider Portland design guidelines).* **8a.3 Create opportunity for a crossing that provides an iconic/demonstrative visual experience.** • *Measure: Qualitative assessment of potential to develop gateways, new views, processional experiences, and demonstrative and/or iconic visual experiences of and on the bridge.*
During Const.	N/A

9. Natural Resources, Climate Change and Sustainability

Long Term	**9a.1 Minimize impacts to water quality and flooding.** • *Measure: Estimated changes in treatment of stormwater generated from impervious surface compared to No-build.* • *Measure: Estimated long-term changes in flood levels.* • *Measure: Estimated area of disturbance of potentially contaminated river substrate.* **9a.2 Minimize impacts to fish and wildlife.** • *Measure: Estimated changes to aquatic habitat (due to change in pier area below OHW and above the critical scour depth - differentiate habitat quality: higher quality (<20' deep) and lower quality (>20' deep).*
During Const.	**9b.1 Minimize temporary impacts to water quality and flooding.** • *Measure: Estimated area of disturbance in proximity to the Willamette River.* • *Measure: Estimated temporary change in flood levels during construction (reasonable worst-case during construction).* **9b.2 Minimize temporary impacts to air quality, greenhouse gas emissions and carbon sequestration.** • *Measure: Qualitative assessment of effects on emissions due to traffic diversions/detours.* • *Measure: Change in carbon sequestration (based on change in tree cover).* ***9b.3 Minimize temporary impacts to fish and wildlife.*** • *Measure: Extent of pile driving.* • *Measure: Size of cofferdams and extent of temporary fill in the river.* **9b.4 Minimize resource consumption and waste production during construction.** • *Measure: (TBD, based on information provided by Greenroads analysis).*

10. Pedestrians, Bicyclists and People with Disabilities (ADA – Americans with Disabilities Act)

Long Term

10a.1 Maximize City's Vision Zero principles for safety and comfort for bicyclists, pedestrians, and other low-impact vehicles (e.g., scooters, skateboards).

- *Measure: Width of bike path, potential for future bicycle climbing lanes, and safety at intersections and crossings.*
- *Measure: Width and slope of pedestrian and ADA facilities on bridge.*
- *Measure: Quality of protection from motor vehicles.*

10a.2 Maximize access/connectivity for bicyclists and other low-impact vehicles.

- *Measure: How well the bike facility on the bridge connects to existing and planned bike networks.*
- *Measure: Quality and quantity of accesses to transit stops and other destinations.*

10a.3 Maximize access/connectivity for pedestrians and ADA.

- *Measure: How well the pedestrian and ADA facilities on the bridge connect to existing and planned pedestrian and ADA networks.*
- *Measure: How well the pedestrian and ADA facilities on the bridge connects to social services and other frequent destinations for users.*
- *Measure: Quality and quantity of accesses to transit stops and other destinations.*

During Const.

10b.1 Minimize temporary travel time and access/connectivity impacts to bicyclists.

- *Measure: Extent of out-of-direction travel, or travel time change, for bicyclists during construction (reflect information, if available, on origins and destinations of trips using the Burnside Bridge; may require quantitative or qualitative assessment and professional-judgment; possibly consider the duration of temporary changes in access/connectivity).*

10b.2 Minimize temporary travel time and access/connectivity impacts to pedestrians.

- *Measure: Extent of out-of-direction travel, or travel time change, for ADA users and pedestrians during construction (reflect information, if available, on origins and destinations of trips using the Burnside Bridge; may require quantitative or qualitative assessment and professional judgment; possibly consider the duration of temporary changes in access/connectivity).*

10b.3 Maximize City's Vision Zero principles for safety and comfort for bicyclists, pedestrians, and other low-impact vehicles (e.g., scooters, skateboards).

- *Measure: Quality of protection of bicycle and pedestrian paths from other modes.*
- *Measure: Width of temporary bicycle and pedestrian paths.*
- *Measure: Qualitative safety assessment of temporary ADA and pedestrian facilities.*
- *Measure: Quality and quantity of accesses to transit connections.*

11. Motor Vehicles, Freight and Emergency Vehicles

Long Term	**11a.1 Maximize safety for motor vehicles and freight.** • *Measure: Qualitative assessment of motor vehicle safety based on design (factors including but not limited to: elements that affect operating speed such as lane width and other cross section details, curve radii, as well as potential conflicts with other modes, sideswipes, property damage, and others)* **11a.2 Maximize emergency service operations and responsiveness.** • *Measure: Qualitative assessment of emergency service responsiveness independent of a major earthquake (factors including but not limited to: lane width and other cross section details, curve radii, potential conflicts with other modes, and others)*
During Const.	**11b.1 Minimize temporary access and travel time impacts to freight and emergency vehicles.** • *Measure: Travel time for motor vehicles from point X to point Y (quantitative ~~if~~ travel model provides reliable estimate.* • *Measure: Duration of temporary closure/capacity reduction.* • *Measure: Quantify number and duration of temporary road closures due to construction.* **11b.2 Minimize temporary safety, impacts to motor vehicles, freight, and emergency vehicles.** • *Measure: Qualitative assessment of the safety of construction phase detours and reroutes relative to existing conditions.* **11b.3 Minimize temporary access and travel time impacts to motor vehicles.** • *Measure: Travel time for motor vehicles from point X to point Y (quantitative travel model provides reliable estimate).* • *Measure: Duration of temporary closure/capacity reduction.* • *Measure: Quantify number and duration of temporary road closures due to construction.*

12. Transit

Long Term	**12a.1 Maximize Streetcar readiness.** • *Measure: Qualitative assessment of impacts to future Streetcar and bus operations (factors including but not limited to: may include lane width and other cross section details, curve radii, potential conflict with other modes, and others).* **12a.2 Maximize bus accessibility.** • *Measure: Qualitative scale considering presence of dedicated bus pullouts, transit stops, transfer points to other modes (LRT).* **12a.3 Minimize transit collision vulnerability.** • *Measure: Qualitative assessment for whether the bridge options create differing intersecting geometries and lane width variations, and how those may increase or decrease the likelihood of motor vehicle collisions with bus, and northbound and southbound Streetcars on MLK and Grand Avenues. (factors including but not limited to: may include lane width, curve radii, intersection cross section, potential for conflicts between modes, anticipated weave motions, and likelihood of sideswipe collisions).*
During Const.	**12b.1 Minimize temporary impacts to transit access, safety, travel times, and ridership.** • *Measure: Frequency and duration of LRT, Streetcar, and bus disruptions.*

13. Fiscal Responsibility

Long Term	**13a.1 Minimize total Project cost.** • *Measure: Estimated total project cost (including design, right-of-way acquisition, construction, temporary bridge, mitigation, utility relocation, etc.).* **13a.2 Minimize long-term maintenance needs/costs.** • *Measure: Number and cost of major maintenance projects expected over life of the bridge, including the necessary bridge repairs following a major earthquake.*
During Const.	N/A

Topics for evaluation/decision-making in later project phases:
While developing the draft criteria groups, the CTF identified a number of topics that cannot be adequately or fully evaluated with the level of design and information that will be available during the DEIS phase. These are listed below with the recommendation that they be applied in later project phases such as during design or construction:

Seismic Resilience	Include equipment on bridge to create additional resilient functions after a major earthquake
Personal Safety	Maintain a safe construction site Implement design that minimizes risk of attempted suicide from the structure
Ped, ADA, Bicyclists	Maximize pedestrian/bicycle aesthetic experience on the bridge
Sustainability	Waste reduction and use of sustainable materials in design and construction. Energy sustainability in design
Navigation	Bridge lighting and signals do not adversely affect navigation safety
Aesthetics	Bridge lighting does not increase night sky impacts Provide a structure that instills a sense of community pride

Upcoming Technical Reports Submittal Dates

Submittal Dates to County for Agency Review	
2/4/20 **Tues**	• Cultural Resources (Hist/Arch) ODOT-Only Review for Section 106 (comments due 2/25/20)
1/31/20 Fri Agency Comments Due 3/6	Design Tech Reports • Updated Construction Approach Tech Report • Updated Enhanced Retrofit Tech Report • Updated Bridge Replacement Tech Report • Updated Geotechnical Tech Report • Updated Preliminary Navigation Study Supporting Documents to Design Tech Reports (updated if agency comments required) • Seismic Design Criteria • Bridge Design Criteria • Roadway Deficiency Tech Memo • Facilities Standards List • Fixed Bridge Removed Recommendation
2/14/20 **Fri** Agency Comments Due 3/6 *(Transp. Comments Due 3/13)*	EIS Batch 1 • Transportation • Displacements and Relocations • Wetlands and Waters • Stormwater • Vegetation, Wildlife, and Aquatic Species • Visual Resources • Hazardous Materials • Supporting Document: ○ Description of Alternatives
2/24/20 **Mon** Agency Comments Due 3/16	EIS Batch 2 • Air Quality • Noise and Vibration • Soils and Geology • Land Use • Utilities • Right-of-Way • Hydraulics • Parks and Recreation
3/16/20 **Mon** Agency Comments Due 4/6	EIS Batch 3 • Social/Neighborhoods • Economics • Public Services • Climate Change
3/27/20 **Fri** Agency Comments Due 4/17	EIS Batch 4 • Section 4(f) and 6(f) • Cultural Resources (Hist./Arch.) • Sustainability (Greenroads Checklist) • Environmental Justice/Equity • Health Impact Assessment (prepared by B. Haggerty at Multnomah County)