APPENDIX B

PUBLIC AND STAKEHOLDER ENGAGEMENT SUPPORTING DOCUMENTS

App-B-1: EQRB Stakeholder Engagement Plan 11_21_2016
App-B-2: EQRB Fact Sheets
App-B-3: EQRB Stakeholder Interviews Summary
App-B-4: EQRB Online Survey Summary – Summer 2017
App-B-5: EQRB Emergency Management Workshop Notes 06_14_2017
App-B-6: EQRB Online Briefing Summary – Spring 2018
App-B-7: EQRB Stakeholder Briefings Summary 11_14_2018
App-B-8: EQRB Social Services Workshop Meeting Notes 07_31_2018
App-B-9: EQRB Mailer – August/September 2018
App-B-10: EQRB Media Coverage
App-B-11: EQRB Engagement Summary – September 2018

MULTNOMAH COUNTY BURNSIDE BRIDGE SEISMIC FEASIBILITY STUDY

STAKEHOLDER ENGAGEMENT PLAN

Prepared for

Multnomah County

Prepared by

November 2016

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INTRODUCTION

This Stakeholder Engagement Plan (SEP) describes the overall strategic approach to stakeholder education and involvement for the Multnomah County Burnside Bridge Seismic Feasibility Study. This framework lays out the tool kit and sequencing for proactively raising community awareness , keeping stakeholders informed, asking for public input when and where needed, and understanding community preferences. The outreach tools and schedule outlined here are intended to form a platform from which stakeholder engagement can be implemented but does not dictate every action that will be needed to promote community participation, understanding and readiness. It assumes flexibility to respond to the changing needs of the study. The SEP reflects commitments from Multnomah County and the consultant team to coordinate and carry out outreach activities designed to assure that interested and impacted parties understand the need for, and have opportunities to provide input on, this study.

STUDY DESCRIPTION

The purpose of the Multnomah County Burnside Bridge Seismic Feasibility Study is to continue the mission and direction established by the 2015 Willamette River Bridge Capital Improvement Plan; ensure public engagement influences the study vision and goals; identify stakeholder concerns, issues, and needs as they relate to the study; develop a short list of replacement and rehabilitation alternatives that meet current seismic standards; and recommend replacement and/or rehabilitation alternatives that shall be advanced to a potential future National Environmental Policy Act (NEPA) study.

PUBLIC INVOLVEMENT PURPOSE AND GOALS

This public involvement and stakeholder outreach process will be implemented to notify and obtain information from Partner Agencies, stakeholder organizations and the community.

THE STUDY'S PUBLIC INVOLVEMENT GOALS ARE TO:

- Communicate complete, timely, accurate, understandable information to the public throughout the study.
- Educate the public about study considerations and recommendations in a clear, responsive and transparent way.
- Build community relationships and seek public input throughout the study.
- Provide meaningful, relevant and well thought-out public involvement opportunities and demonstrate how input has influenced the process.
- Seek participation of all potentially affected and/or interested individuals, communities and organizations.

AUDIENCES

This list contains community stakeholder interest categories (identified to date). There are several organizations within each of the following groups that the PI process will seek to inform and engage:

- Bridge users
- Social service providers & organizations
- Environmental justice and equity organizations
- Bike and pedestrian communities
- Downtown and Eastside Business Associations
- Adjacent businesses
- Chambers of Commerce
- Developers
- Freight, warehousing and shippers
- Neighborhood Associations
- River users
- Homeless populations
- Historical interests
- Recreational groups
- Tourism interests
- Neighborhood emergency response groups
- Transit
- Event organizers
- Railroad

STUDY CONSIDERATIONS

There are many considerations that will be considered in the study screening and evaluation process, many of which the public will have a strong interest in. The following graphic is an illustration of some of the many factors to be considered throughout this process.

COORDINATING AGENCIES

This list contains potential agency partners (identified to date). These agencies will kept informed and consulted as appropriate to ensure that the study is building alliances, following policy, meeting regulatory requirements and coordinating with other current and planned relevant study. The PI process will seek to inform and engage throughout the study process:

MULTNOMAH COUNTY

- BCC
- Chief Financial Advisor
- Project Delivery Team (PDT)
- Community Services (Bridges, Transportation Planning, Roads, etc.)
- Office of Diversity and Equity
- Office of Citizen Involvement
- Office of Government Relations
- Sustainability
- Office of Emergency Management
- Sheriff

LOCAL AGENCIES

- TriMet
- Metro
  - JPACT/TPAC
  - MCTCC
- East Multnomah County Transportation Committee
- Regional Arts & Culture Council
- City of Portland
  - Mayor's Office
  - PDC
  - Police Department
  - Portland Fire and Rescue
  - City Bureau of Planning & Sustainability
  - Office of Equity and Human Rights
  - Bureau of Transportation
  - Bureau of Environmental Services
  - Bureau of Parks and Rec
  - Office of Neighborhood Involvement
  - Bureau of Emergency Management
  - Bureau of Emergency Communications
  - Bureau of Development Services
  - Streetcar

FEDERAL, STATE AND LOCAL AGENCIES AND REPRESENTATIVES

- Governor's Office
- State Legislators
- State Resiliency Officer
- Federal Legislators
- Clackamas County
- Washington County
- Federal Highway Administration
- ODOT Bridge
- WSDOT Bridge
- ODOT Region 1

REGULATORY AGENCIES

- State Regulatory Agencies (SHPO, DSL, DEQ, ODFW, etc.)
- Federal Regulatory Agencies (USFW, NMFS, ACOE, Coast Guard etc.)

Below are the suggested agencies and representatives to be invited to Senior Agency Staff meetings and Policy Group meetings:

POLICY GROUP

- Multnomah County Board of Commissioners
- TriMet
- Metro
- City of Portland Mayor’s Office
- Governor’s Office
- State Legislators
- Federal Legislators Office

- Clackamas County
- Washington County
- FHWA
- ODOT Region 1
- Portland Development Commission

SENIOR AGENCY STAFF

- Multnomah County
- TriMet
- Metro
- City of Portland (Mayor's Office/PBOT
- Governor's Office/State Resiliency Officer
- State Legislators
- Federal Legislators Office
- Clackamas County
- Washington County
- FHWA Bridge
- ODOT Region 1
- ODOT Bridge
- Portland Development Commission

OTHERS TO CONSIDER

- PDC
- Police Department
- Portland Fire and Rescue
- City Bureau of Planning & Sustainability
- Office of Equity and Human Rights
- Bureau of Environmental Services
- Bureau of Parks and Rec
- Office of Neighborhood Involvement
- Regional Arts & Culture Council
- Bureau of Emergency Management
- Bureau of Emergency Communications
- Bureau of Development Services
- Streetcar

DRAFT KEY MESSAGES, TALKING POINTS, AND TAGLINE

Portland is overdue for an unprecedented and catastrophic earthquake that will collapse our downtown bridges leaving our city divided.

- Geological information confirms that the earthquake's impact will reach Portland.
- Current engineering design standards allow us to prepare our bridges to withstand severe earthquake impacts.

The Burnside corridor is the City's designated lifeline route. Making a wise investment in our lifeline bridge now will ensure we can respond to the earthquake emergency and rebuild our community.

- Our short and long-term recovery depends on making good decisions about where and how to ensure a resilient river crossing. A quickly available way to get across the Willamette will reunite families, provide emergency response, move goods, enable commerce and help recuperate our economy.
- The Burnside Bridge is the best choice for focusing our earthquake preparedness resources. Being able to cross the Willamette after a disastrous event is a crucial element of our Burnside lifeline.
- There are many considerations to be weighed in determining our best path forward. It is crucial that we use the best technical information available to make a thoughtful decision about how to proceed.

The Burnside Bridge Feasibility Study will examine options to create a resilient lifeline crossing that will be a source of pride for our community for generations.

- This study intends to preserve and extend the legacy of regional and statewide service that the 90 year-old Burnside Bridge has established.

- The feasibility study is the first step in the County's decision process. It will consider a full range of retrofit and replacement options and narrow down to the most reasonable, reliable, and cost-effective alternatives.
- It will take years to get an earthquake safe crossing in place. We have to begin now, be efficient and thoughtful, and make steady progress.

Join in. Participate in the effort to ensure the long-term safety and viability of our region.

- Multnomah County is exercising leadership to equip the Burnside Bridge to fulfill its lifeline route function.
- There many voices in our community and many considerations to take into account. Community-wide participation is vital so that our solution reflects our values and serves the needs of all of us.
- Each of us needs to prepare – as households, neighborhoods and a community.
- There will be many opportunities to learn more, track study progress and share your thoughts. Follow us on the website.

SHORT AND STRONG

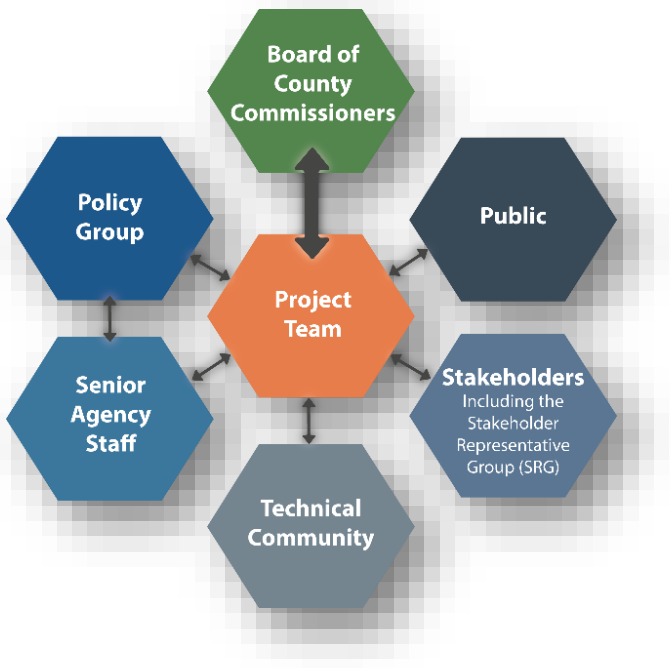
- A big earthquake event is overdue and it's going to cause damage and isolate us from one another.
- We have the knowledge and tools to prepare.
- We can protect our lifeline connection.
- Join in. We can all pitch in and do our part to be ready to respond, recover and reunite.

TAGLINE WORDS

- Prepare. Withstand. Protect.
- Ready. Respond. Reunite. Rebuild.
- Respond. Recover. Reunite.

DECISION-MAKING STRUCTURE

Decision-making will be supported and informed by broad stakeholder outreach as described in this Plan in the belief that the best way to make strategic decisions and build awareness is to have a transparent, effective and inclusive process that is credible and understood as credible by stakeholders.



PROJECT TEAM ROLES & RESPONSIBILITIES FOR PUBLIC INVOLVEMENT

The **Project Delivery Team (PDT)** is responsible for the strategic alignment with the County's values and policies, study delivery, government and stakeholder relation and outreach, assessing and managing study risks, and financial and resource planning.

The **Project Management Team (PMT)** will work with the technical team leads to manage scope, schedule, budget and progress.

SEP monitoring, adjustment and implementation will be guided by a **PI Technical Team**. The team will meet as needed to manage work flow, quality, scope, budget, and schedule of products and activities. The team includes:

- Vaughn Brown (lead)
- Jessica Pickul
- Doug Zenn
- Cassie Davis
- Marcy Schwartz

PI team recommendations will be forwarded to the consultant PMT and the study PDT for review and approval.

The following are key study team members that will have a role carrying out the SEP:

HDR

- **Heather Catron, *Project Manager.*** Provides oversight of overall study.
- **Steve Drahota, *Engineering Lead.*** Provides oversight of engineering studies and deliverables.
- **Doug Zenn, *Partner and Stakeholder Engagement.*** Provides guidance on public involvement strategy and supports implementation of outreach efforts.
- **Cassie Davis, *Stakeholder Coordination.*** Provides guidance on public involvement strategy and supports implementation of outreach efforts. Acts as liaison, and when appropriate, provides coordination between Burnside Maintenance Project and this study's public involvement efforts.

CH2M

- **Marcy Schwartz, *Policy and Engagement Advisor.*** Acts as an advisor on several aspects of the study including public involvement efforts.

Parametrix

- **Jeff Heilman, *Pre-NEPA/ Planning Lead.*** Acts as an advisor on pre-NEPA requirements, which need to be considered throughout study outreach efforts.
- **Yuhe Yang, *Bridge Lead.*** Leads the development of bridge alternatives, including the seismic analysis process

JLA Public Involvement – Consultant Communications and Outreach Specialists

- **Vaughn Brown, *Public Involvement Lead.*** Provides oversight for the Public Involvement Technical Team, provides strategy and facilitation for the Stakeholders Representative Group (SRG) and Policy Group.
- **Jessica Pickul, *Deputy Public Involvement Project Manager.*** Provides oversight for the public involvement program including outreach and communications.
- **Kalin Schmoldt, *Website and Online Outreach.*** Supports the development of online engagement tools.

Multnomah County

- **Ian Cannon – *Engineering and Transportation Division Director*.** Provides strategic direction and guidance.
- **Megan Neill – *Engineering Services Director*.** Provides owner's oversight of study delivery.
- **Mike Pullen – *Communications Officer*.** Provides guidance and strategy for all engagement efforts.

HDM Research

- **John Horvick, *Polling.*** Leads implementation of community research and surveys.

PUBLIC INVOLVEMENT STRATEGY

A belief that informed public consent generates the best solutions and the most support for a civic works study drives this approach. The following is the study strategy for systematically creating informed consent, laid out in a three-phase approach.

The phases are designed to reflect our outreach process and timed to match technical deliverables. The interplay of when technical information will be available for public distribution and the need for community input on key deliverables will require close coordination within the study team. Project Delivery Team and consultant team leader meetings are the prime venues for maintaining intra-team communication that ensures synchronization and complementarity among study activities and deliverables. Key technical deliverables are noted in each stage below.

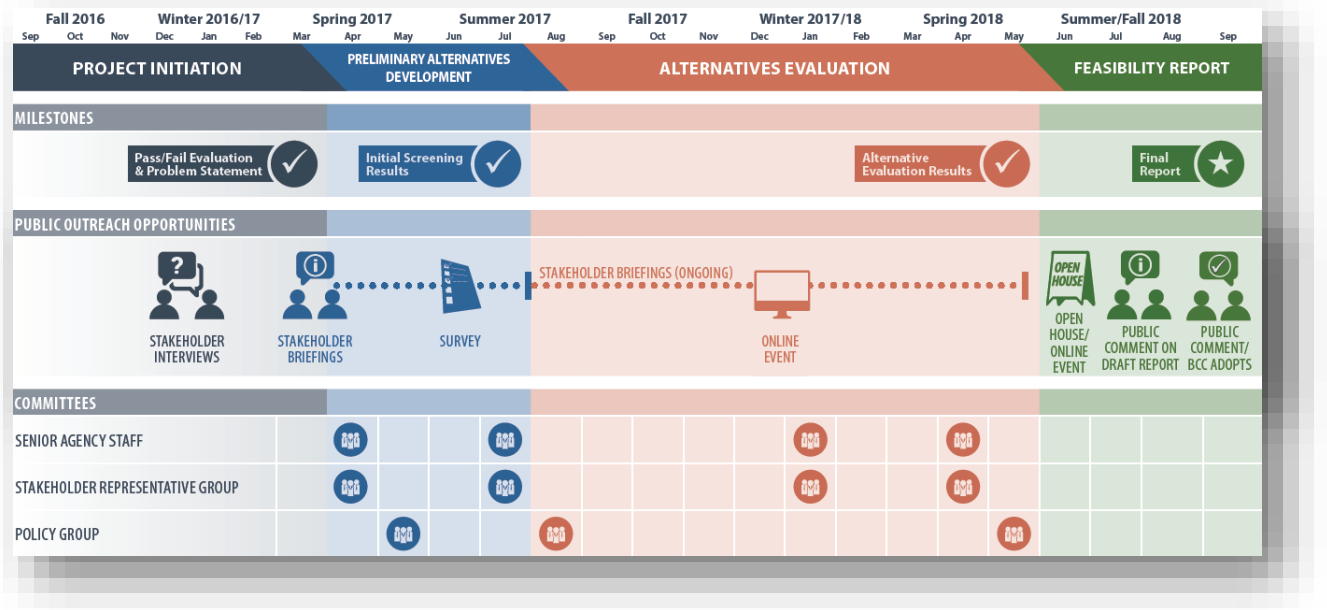
Project Initiation/ Develop Initial Concepts/Refine Project Objective
Key technical deliverables: draft study objective; seismic and operations technical design criteria; initial concepts list; seismic visualization
During these phases, we will start to build awareness about the study's objective (preliminary purpose and need) and will begin to identify community needs and interests. We will employ both targeted engagement and information tools to put the study on the community's radar. We will also elicit technical design criteria input from partner agencies required for the study, and conduct Seismic Resiliency Committee (SRC) meetings to validate the seismic criteria by industry experts. This phase begins with a "soft opening" approach that includes a round of stakeholder interviews to test basic study communication materials and listen to stakeholder initial responses to the study. It will be followed by another round of wider community briefings and presentations to drive stakeholders to study online information and input resources including a study overview video and initial seismic visualization. Foundational study information tools will be finalized to support those briefings and carry the study story to the public. The website, fact sheets, FAQs, and media releases will raise widespread awareness. The stakeholder database will be created for contact information, enabling interested party emails and notices. The Stakeholder Representative Group (SRG) will have its first meeting in this phase to establish the SRG's role as a sounding board, provide a study overview, review results of the pass/fail screening based on safety, function and operating design criteria and to identify stakeholder interests that will help form initial screening criteria based on the study's preliminary objective (purpose and need).

Screen Initial Concepts
Key technical deliverables: final study objective; screening criteria; seismic analysis and initial retrofit strategy development; concept screening; geotechnical report; traffic, roadway, multi-modal report; rehab, seismic retrofit and replacement reports; preliminary environmental conditions memo
In this phase, stakeholders will see information about how their initial input was incorporated into the study objective, screening criteria and design considerations. Fact sheets and infographics will be used to explain geotechnical, environmental, traffic and multi-modal findings. The information tools may be enhanced by the addition of social media updates to continue building interest and understanding. Group presentations will continue on an "as-requested" basis. An online survey may be used to help screen a subset of original concepts into a set of alternatives to be evaluated. The SRG will meet to review the results of the initial

screening and provide input on the evaluation criteria that will be used to conduct the alternative evaluation.

Evaluate Range of Preliminary Alternatives
Key technical deliverables: screened Concepts list; evaluation criteria; alternatives evaluation; feasibility report
This phase uses community-wide events and the third SRG meeting to review evaluation results. In-person and online public events will be held to gather broad-based community input which will be compiled and considered by the SRG as they advise the study team in determining the best set of feasible alternatives to advance into the NEPA process. Information tools will continue to keep a steady flow of study updates and notices. A combination of targeted presentations alternatives evaluation surveys and a strong media strategy will round out this phase of involvement and communication activities.

Agency Partner Consultation
Throughout all three phases local, state and federal agencies will be briefed on study progress and discuss study findings. Agency briefings and a series of agency senior staff and policy group meetings are planned to keep partners engaged and supportive.



STAKEHOLDER REPRESENTATIVE GROUP

The SRG is a sounding board composed of 15-20 representatives from stakeholder organizations that are most impacted by and interested in the study. The interviews and briefings held during phases 1 and 2 will help the study team identify these pivotal stakeholders. Membership will be by invitation of the County rather than official appointment. SRG meetings will be publicly advertised and will include a public comment period.

Meetings will be designed and facilitated to encourage intra-group discussion and provide feedback on study products and pending decisions. Members will have access to detailed study information and expertise. The SRG is not a decision-making body. It will function to provide the study team guidance and advice from a body of well-informed community members.

PUBLIC INVOLVEMENT TOOL KIT

The following table includes stakeholder engagement and informational tools and activities identified to date that will be available to be employed throughout the study to engage and inform a broader public audience. This list is not intended to limit outreach choices as the study proceeds. It is intended to set a SEP foundation for proactive provision of stakeholder opportunities to learn about and comment upon the feasibility study.

ENGAGEMENT

Tool/Activity	Description	Phase(s)
Initial Stakeholder Interviews	An early set of 15 interviews will introduce selected stakeholders to the study, test study messages and plans, listen to needs and concerns, receive input concerning how to best deliver study information (see details below).	1
Stakeholder Briefings	Up to another 45 group briefings or interviews will roll out the community-wide awareness campaign. These outreach actions will introduce the study, drive stakeholders to the website, listen to needs and concerns, receive input concerning how to best deliver study information, and advertise future engagement opportunities.	1, 2
Early Group Presentations and Discussions	Up to four presentations of up to two-hours each will be conducted with key stakeholder organization groups, such as neighborhood associations and business associations, to provide a study introduction. The study team shall receive input concerning how, when and through which channels general-public stakeholders can best receive study information.	2
Stakeholder Database	A stakeholder database will be developed from existing contact lists and current research. The stakeholder database shall be used to track key stakeholder and interested parties contact information and participation at meetings throughout the life of the study. This database will be designed to enable comment tracking throughout the study.	All
Stakeholder Representative Group	Three Stakeholder Representative Group (SRG) meetings taking up to two hours each will be attended, with the SRG comprised of representatives of key stakeholder groups with the goal of providing input during the alternatives evaluation process.	2, 3
Community-Wide Events	Four, two-hour Open House events will be held in order to share study information and allow an opportunity to collect community and stakeholder input on issues or concerns regarding the study. These will occur at critical milestones in the study including which include Preliminary Alternatives Development and Publishing the Draft Feasibility Report.	3
Targeted Community Presentations	Six presentations will be held in order to expand the awareness of the study among audiences that are hard-to-reach otherwise. This could include light canvassing, group tours or presentations at existing meetings.	2, 3

INFORMATION TOOLS

Tool/Activity	Description	Lead
Mailers	Agency and stakeholders will be invited to the community-wide events via a designed 8.5”x11” mailer and media release.	3
Infographics and event notices	Up to 45 infographics will be created in support of the study community information materials, providing a consistent graphic identity on all publicly-distributed materials, including notices of events and meetings.	All
Fact Sheets	Up to six study fact sheets aligning with key study milestones will be created for use during stakeholder outreach.	All
Website	A study website with up to 20 linked pages will be developed, with weekly support.	All
Establish and Maintain Social Media	Strategy, content and responses to social media will be developed in order to create an online presence for study activities and generate awareness through popular social media outlets – Twitter and Facebook. Monthly social media usage reports will be sent. **Note: a separate social media strategy will be developed to supplement this SEP.**	2, 3
Develop Videos	A two-minute video will provide key study messages on the study website.	1
Online Open Houses	Two Online Open Houses aligning with the in-person community-wide events will provide an online opportunity to share study information and provide an opportunity to collect community and stakeholder input on issues or concerns regarding the study.	3
Research and Surveys	A statistically-valid telephone or web-based survey will be prepared, directed for impacted stakeholders in the Portland metropolitan area.	2, 3
Media Strategies and Releases	Media consultation will be offered for non-planned media inquiries, along with recommendations on key messages and media responses in order to communicate issues and process messages. **Note: a separate media strategy will be developed to supplement this SEP.**	All

STAKEHOLDER INTERVIEWS

As outlined in the “Identifying Needs” Phase, 15 - 20 interviews with key stakeholder groups (both community and agency) will be conducted to test messaging; gain a better understanding of stakeholder questions; learn more about needs, issues, and opportunities for the study; and ask who else should be involved. These interviews will be run by one consultant team member (PI or technical) and a staff member from the County. An interview instrument will be developed to guide conversations. Interviewers are expected to provide “what we heard and what we learned” interview summary reports to be compiled into a final report documenting the process and findings.

First round interviewees will focus on organizations represented on the Audiences and Agencies lists provided earlier in this document. The following is a sample of those who might be included in the stakeholder interviews:

Community

- JOIN
- Central Eastside Industrial Council
- American Medical Response
- Louis Dreyfus Company
- Organizing People/Activating Leaders
- Oregon Trucking Association
- American Automobile Association
- Old Town/Chinatown Community Association
- Better Block
- Office of Neighborhood Involvement
- Portland Saturday Market

Agencies

- Mayor-elect's Office
- Federal Highway Administration
- TriMet
- Office of Emergency Management
- Port of Portland
- ODOT
- Portland Development Commission

MEASURING AND MONITORING OUTREACH ACTIVITIES

The PI Technical Team, PMT and PDT monitor and will evaluate the public involvement process on an ongoing basis to determine the effectiveness of the outreach effort. The SEP will be modified as needed to expand successful techniques.

At key milestones, the PI Technical Team will meet to discuss and assess how well the program is meeting the public involvement goals listed earlier in this plan. While evaluation of these goals is necessarily subjective, the team will also consider the following more measurable objectives as the team assesses program effectiveness:

- *Number of participants attending meetings or events.*
- *Number of responses received to a survey or questionnaire.*
- *Number and percent of participants providing feedback in a language other than English.*
- *Number of website hits or downloads occurring during a specific time period.*
- *Number of people who have signed up for the study mailing list.*
- *Number of study comments received (phone, email, comment cards, online).*
- *Number of comments from targeted audiences (identified in Audiences and Potential Cooperating Agencies)*
- *Whether comments received are relevant to the study (indicates study understanding).*
- *Quantity and accuracy of press coverage.*
- *How study decisions have been modified as a result of public.*

PROJECT IDENTITY

An important quality of successful projects is a consistent look and feel, logo and templates for public materials. A study identity can be intentional and thoughtful. It can't be underestimated as it is the first impression that many stakeholders have of a study. We recommend that the Burnside Bridge Seismic Feasibility Study considers the following items that contribute to the overall identity to a study.

1. **Design Guidelines:** provide the study team with study fonts, colors, and document settings that should be used for any public-facing materials or study deliverable.
2. **Document Templates:** ensures that all study team members are using the same templates for PowerPoint presentations, memos, agendas and reports.
3. **(Consider) Project Logo:** the first and often most memorable thing about a study's identity. It should symbolize the study purpose and communicate what the study hopes to achieve. Finally, it should consider community and cultural sensitivities.
4. **(Consider) Project Name:** will be used on all study materials, in the media and any other opportunity to engage the public. A study name should be understandable by the general public and indicate what the study seeks to achieve.

EARTHQUAKE READY
BURNSIDE BRIDGE

Multnomah County is working to create an earthquake-safe Willamette River crossing

BETTER. SAFER. CONNECTED.

Portland's aging downtown bridges are not expected to withstand a major earthquake. That is why Multnomah County is taking the lead on making at least one earthquake ready. Located in the heart of downtown, the Burnside Bridge is a regionally established lifeline route across the Willamette River. Lifeline routes are important because they:

- Help firetrucks, ambulances, and police cars respond in an emergency
- Reunite families and loved ones
- Help our economy recover

WHAT IS THE PLAN?

Since 1926, the Burnside Bridge has served us well. To take us across the river for another 100 years, it needs an upgrade. Over the next several years, Multnomah County will evaluate options for creating a resilient Burnside crossing that will withstand a major earthquake.

The first step is to narrow a long list of over 100 options through a screening process to arrive at a short list of recommended options to be evaluated in more detail in a later phase.

BURNSIDEBRIDGE.ORG

FOLLOW THE PROJECT ON TWITTER:
@MultCoBridges, #ReadyBurnside

VISIT THE PROJECT WEBSITE TO:

- Sign up for updates.
- Request a presentation for your community or business group.
- Learn about upcoming meetings, events and other ways to provide input.

FOR MORE INFORMATION, CONTACT:

Mike Pullen
Multnomah County Communications Office
mike.j.pullen@multco.us
(503) 209-4111

EARTHQUAKE READY BURNSIDE BRIDGE

HOW ARE THE OPTIONS BEING NARROWED?

Multnomah County has considered more than 100 river crossing options on the Burnside lifeline route. These options are undergoing an extensive screening process to make sure they meet requirements for a reliable river crossing after a major earthquake.

SCREENING STEPS

1

Each option was screened against the core requirements of seismic resiliency, emergency response, and compatibility with major infrastructure.

2

Each remaining option was evaluated on how well it functioned immediately after an earthquake in addition to everyday use.

3

Each remaining option is being further evaluated for its performance in six key categories:

We are here.

- **SEISMIC RESILIENCY**
  Support reliable and rapid emergency response after an earthquake.
- **NON-MOTORIZED TRANSPORTATION**
  Support access and safety for bicyclists, pedestrians and people with disabilities.
- **CONNECTIVITY**
  Support street system integration and function for all modes.
- **EQUITY**
  Minimize adverse impacts to historically marginalized communities and promote transportation equity.
- **BUILT ENVIRONMENT**
  Promote land use compatibility and minimize impacts to parks and historic resources.
- **FINANCIAL STEWARDSHIP**
  Ensure public funds are invested wisely.

FINAL REPORT

FALL 2018

The options that pass through these three screening steps will be published in a final report.

OPTION GROUPS

No Build
Maintain existing bridge as-is.
These options are not seismically resilient or cannot support emergency response.

Seismic Retrofit
Upgrade the existing bridge.
A full seismic retrofit of the bridge is not feasible due to significant impacts to I-5 during construction.

Enhanced Seismic Retrofit
Retrofit most of the existing bridge, but replace the spans over I-5 and the railroad.

Replacement
Build a new crossing such as a high fixed bridge, low movable bridge, twin bridges or a tunnel.

Enhance Another Bridge
Retrofit or replace a different bridge across the Willamette River.
Other bridges do not provide a rapid and reliable connection to the Burnside lifeline route after an earthquake.

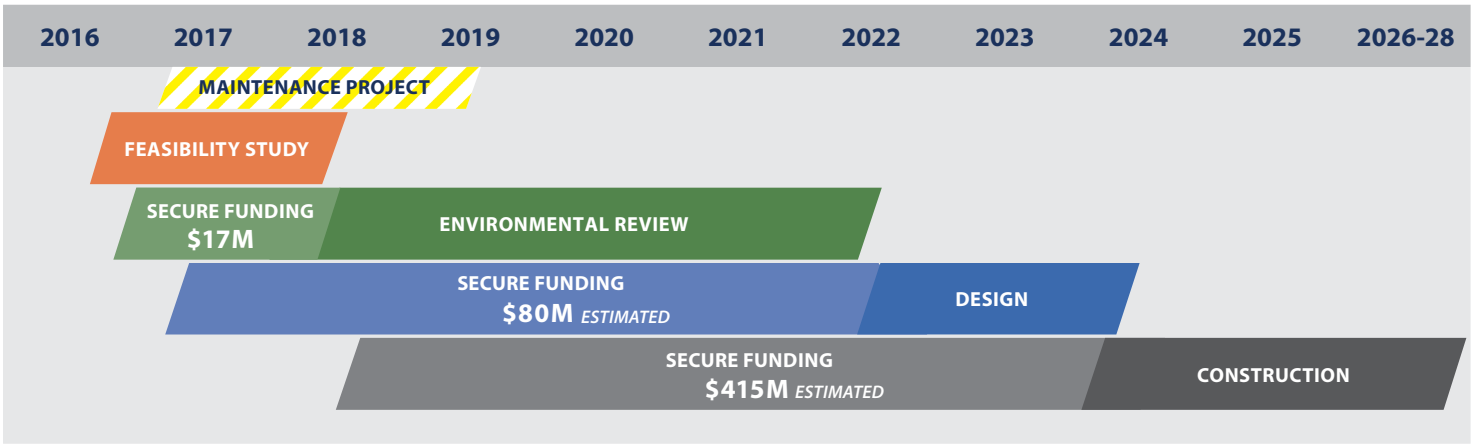
REMAINING OPTIONS

A draft of the final report will be available for public comment in Summer 2018.

The Multnomah County Board of Commissioners will make the final decision on which options will advance to environmental review.

PROJECT TIMELINE

We are in the Feasibility Study phase of the project. It will take years to get an earthquake-safe crossing in place, so we must work thoughtfully and make steady progress toward that goal.



This timeline shows the schedule and estimated costs for the Earthquake Ready Burnside Bridge project. It also shows the current maintenance project that is repairing and improving the bridge to keep it safe and working for another 15–20 years.

EARTHQUAKE READY BURNSIDE BRIDGE

Multnomah County

WE WANT TO HEAR FROM YOU

Multnomah County is working with regional partners and the community to narrow crossing options with this planning process. Tell us what we should consider as we plan for an earthquake-resilient crossing.

Weigh in at community events and via online surveys.

Request a project briefing for your organization.

Attend an upcoming committee meeting.

Find out more about these opportunities at
BurnsideBridge.org

EARTHQUAKE READY BURNSIDE BRIDGE

El Condado de Multnomah está trabajando para crear un sitio para cruzar el río Willamette que resista terremotos

MEJOR. MÁS SEGURO. CONECTADO.

No se espera que los envejecidos puentes del centro de Portland resistan un terremoto de gran magnitud. Es por eso que el Condado de Multnomah está tomando medidas para que al menos uno pueda resistir un terremoto. El puente de Burnside, situado en el centro de la ciudad, es una establecida ruta regional vital que cruza el río Willamette. Las rutas vitales son importantes porque:

- Permiten que los camiones de bomberos, las ambulancias y las patrullas policiales respondan a emergencias
- Reúnen a las familias y los seres queridos
- Ayudan a recuperar nuestra economía

¿EN QUÉ CONSISTE EL PLAN?

El puente de Burnside nos ha servido fielmente desde 1926. Tenemos que actualizarlo para que nos permita atravesar el río durante otros 100 años. En los siguientes años, el Condado de Multnomah va a evaluar opciones para crear un cruce en Burnside que resista terremotos de gran magnitud.

El primer paso consistirá en seguir un proceso de evaluación para elegir entre una larga lista de más de 100 posibilidades hasta obtener una lista reducida de opciones recomendables que se evaluarán más detalladamente en una fase posterior.

BURNSIDEBRIDGE.ORG

SIGA EL PROYECTO EN TWITTER:
@MultCoBridges, #ReadyBurnside

VISITE EL SITIO WEB DEL PROYECTO PARA:

- Inscribirse a fin de recibir actualizaciones.
- Solicitar una presentación para su comunidad o grupo empresarial.
- Obtener información sobre reuniones, eventos y otras oportunidades para dar sus opiniones.

PARA OBTENER MÁS INFORMACIÓN, CONTACTE A:

Mike Pullen
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EARTHQUAKE READY BURNSIDE BRIDGE

¿CÓMO SE ESTAN DEFINIENDO LAS OPCIONES?

El Condado de Multnomah ha considerado más de 100 opciones de cruce del río para la ruta vital de Burnside. Estamos evaluado exhaustivamente estas opciones para asegurarnos de que cumplan con los requisitos que debe tener un sitio de cruce confiable después de un terremoto de gran magnitud.

PASOS DE LA EVALUACIÓN

1

Cada opción se evaluó con respecto a requisitos básicos de resistencia sísmica, respuesta a emergencias y compatibilidad con infraestructuras importantes.

2

Cada opción que cumplió estos criterios se evaluó en base a su desempeño inmediatamente después de un terremoto, además de su uso cotidiano.

3

Se está evaluando cada una de las opciones seleccionadas de acuerdo a su desempeño en seis categorías clave:

Nuestra posición actual.

- **RESISTENCIA SÍSMICA**
  Apoyo para una respuesta confiable y rápida a emergencias después de un terremoto.
- **TRANSPORTE DE VEHÍCULOS NO MOTORIZADOS**
  Acceso y seguridad para ciclistas, peatones y personas discapacitadas.
- **CONECTIVIDAD PARA EL TRANSPORTE**
  Integración con el sistema vial y funcionalidad para todos los modos de transporte.
- **EQUIDAD**
  Minimizar impactos adversos en las comunidades afectadas y promover transporte equitativo.
- **ENTORNOS EXISTENTES**
  Promover compatibilidad con el uso de los terrenos y minimizar el impacto en los parques y los recursos históricos.
- **RESPONSABILIDAD FINANCIERA**
  Garantizar una inversión inteligente de los fondos públicos.

INFORME FINAL

OTOÑO 2018

Las opciones que cumplan los tres pasos de esta evaluación se publicarán en un informe final.

GRUPOS DE OPCIONES

No construir
Mantener el puente existente.
Estas opciones no ofrecen resistencia sísmica ni permiten responder a emergencias.

Adecuación sísmica
Actualizar el puente existente.
No es viable realizar una adecuación sísmica completa del puente debido al fuerte impacto que tendrían los trabajos de construcción en la autopista I-5.

Adecuación sísmica aumentada
Adecuar la mayor parte del puente existente y reemplazar los tramos que atraviesan la autopista I-5 y las vías ferroviarias.

Reemplazo
Construir un cruce nuevo, como un puente elevado fijo, un puente levadizo bajo, puentes gemelos o un túnel.

Mejorar otro puente
Adecuar o reemplazar otro puente que cruce el río Willamette.
Otros puentes no proveen una conexión rápida y confiable a la ruta vital de Burnside después de un terremoto.

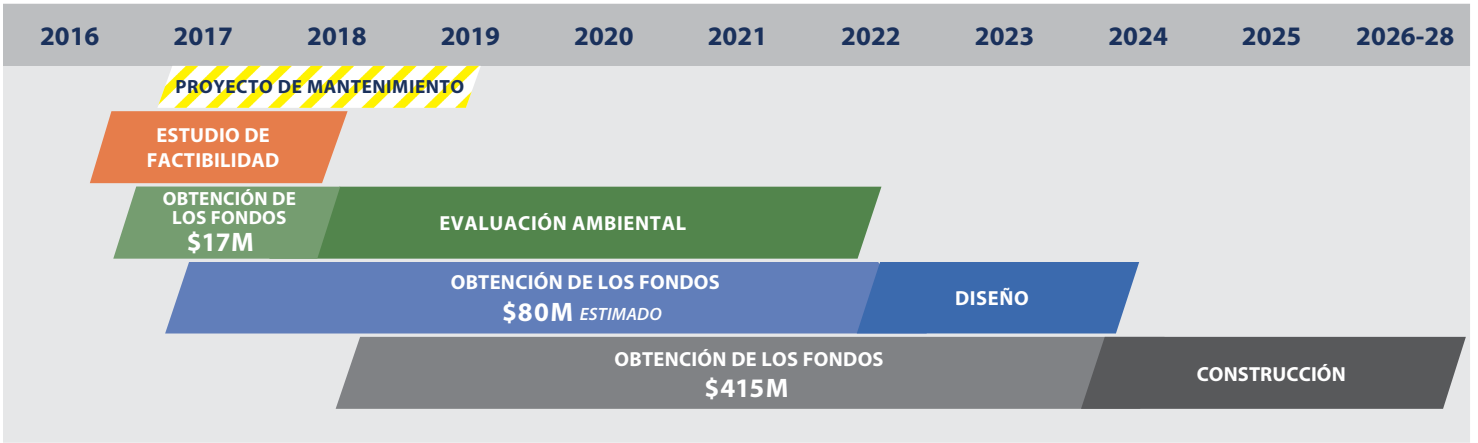
OPCIONES SELECCIONADAS

En verano del 2018 publicaremos un borrador del informe final para solicitar comentarios del público general.

La Junta Administratia del Condado de Multnomah tomará su decisión final sobre qué opciones se remitirán a la evaluación ambiental.

CRONOGRAMA DEL PROYECTO

Estamos en la fase de estudio de factibilidad del proyecto. Tomará años construir un sitio por donde cruzar que resista terremotos, así que tenemos que trabajar de manera inteligente y avanzar concienzudamente hacia ese objetivo.



Este cronograma muestra el calendario y los costos estimados para el proyecto del Puente Resistente a Terremotos de Burnside. También muestra el actual proyecto de mantenimiento que consiste en reparar y mejorar el puente para mantenerlo seguro y funcional durante 15 a 20 años más.

EARTHQUAKE READY BURNSIDE BRIDGE

Multnomah County

QUEREMOS CONOCER SUS OPINIONES

El Condado de Multnomah está trabajando con socios regionales y la comunidad para definir las opciones de cruce durante este proceso de planificación. Háganos saber qué debemos considerar al planificar un cruce que resista terremotos.

Dé sus opiniones en eventos comunitarios y a través de encuestas en Internet.

Solicite un informe del proyecto para su organización.

Asista a una próxima reunión del comité.

Obtenga más información sobre estas oportunidades en

BurnsideBridge.org

EARTHQUAKE READY BURNSIDE BRIDGE

Multnomah County

June 2017

Multnomah County is studying options for a resilient Burnside Bridge that will withstand a major earthquake.

About the Project

Portland's aging downtown bridges, including the Burnside Bridge, were not built to withstand a major earthquake. Multnomah County is studying how to create a resilient Burnside Bridge that can carry traffic over the river after a disaster. The study will determine what improvements are needed to both extend the service life of the bridge and prepare it to survive a major earthquake.

A Resilient Earthquake River Crossing

Burnside Street is a regional lifeline transportation route designated to enable emergency response, evacuation and recovery soon after a major disaster. The route requires a river crossing that can withstand an earthquake to support emergency services, reunite families, move goods, enable commerce and help our economy recover. Our region will be divided if the lifeline route cannot safely move vehicles across the Willamette River after a disaster. This study will evaluate a variety of river crossing ideas and identify the best options for creating a resilient lifeline crossing that will serve our community for generations.

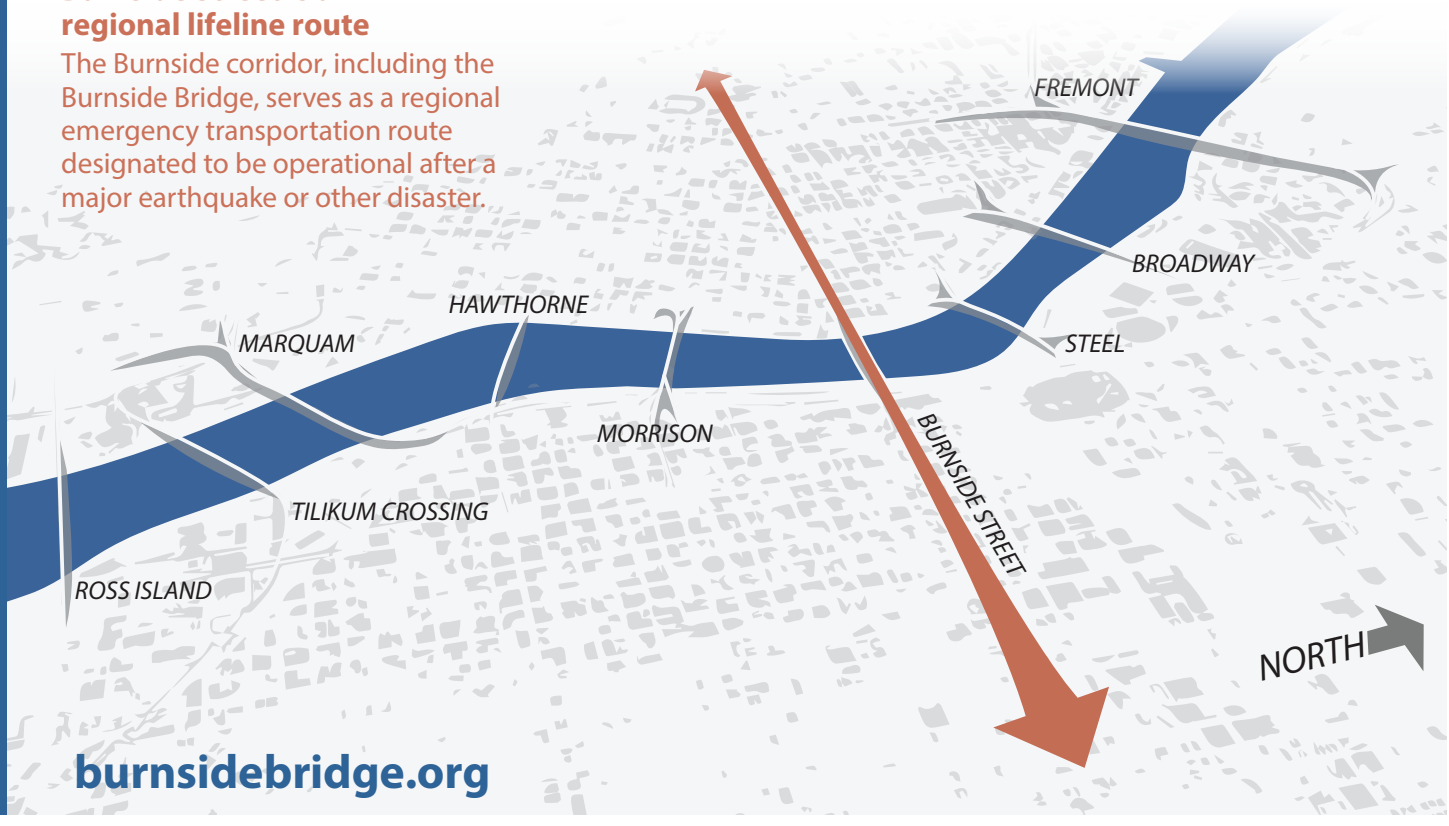
Protecting our region's emergency lifeline

Our Community Needs to be Involved

It will take years to get an earthquake-safe crossing in place, so we must work thoughtfully and make steady progress toward that goal. Input from the community is essential to help us make sure that we find the best solution for everyone.

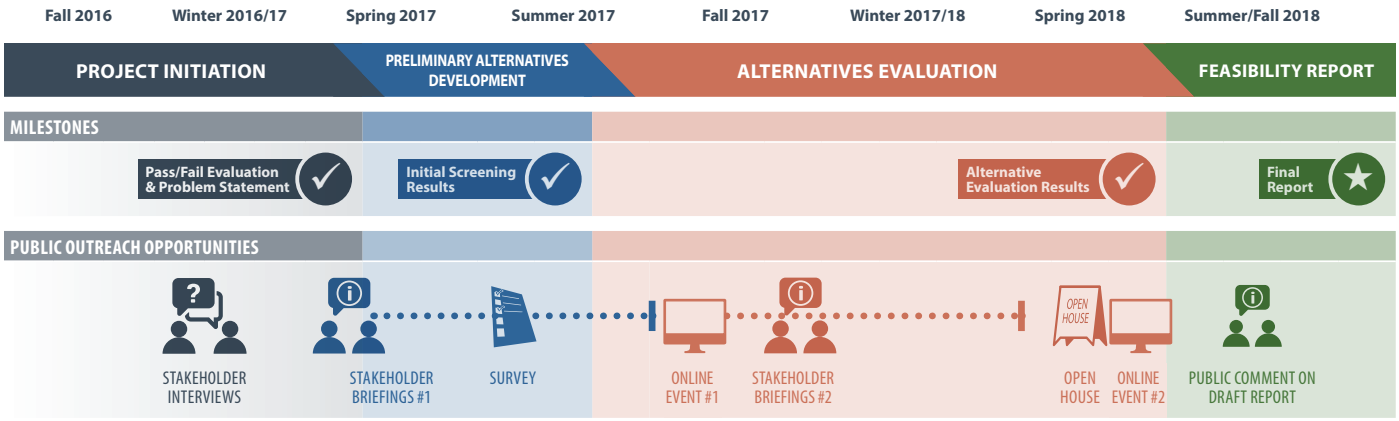
Burnside Street is a regional lifeline route

The Burnside corridor, including the Burnside Bridge, serves as a regional emergency transportation route designated to be operational after a major earthquake or other disaster.



burnsidebridge.org

Project Timeline



Get Involved

We need you to weigh in!

There are many voices in our community and considerations to take into account. Community-wide participation is vital so that our solution reflects shared values and serves the needs of us all.

The project includes many public involvement opportunities to ensure that the final feasibility study is informed by the needs and issues important to the public.

Visit **burnsidebridge.org** to:

- Sign up for study news and updates.
- Invite the project team to present to your community or business group.
- Learn about upcoming meetings, events and other ways you can weigh in.

Follow the project on Twitter

@MultCoBridges, #ReadyBurnside

For more information, contact:

Mike Pullen
Multnomah County Communications Office
mike.j.pullen@multco.us
(503) 209-4111

Points of Interest

Burnside Bridge

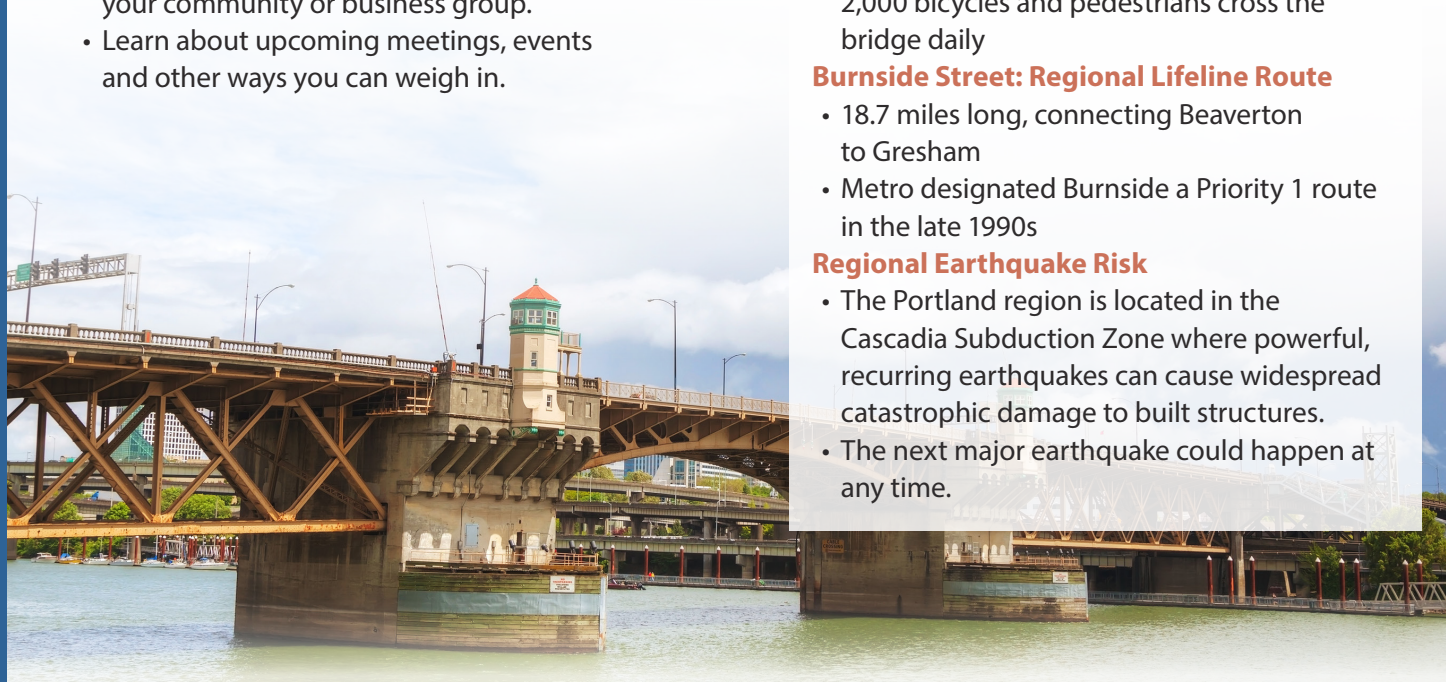
- Bridge opened in 1926
- 40,000 vehicles, 3 TriMet bus lines, and 2,000 bicycles and pedestrians cross the bridge daily

Burnside Street: Regional Lifeline Route

- 18.7 miles long, connecting Beaverton to Gresham
- Metro designated Burnside a Priority 1 route in the late 1990s

Regional Earthquake Risk

- The Portland region is located in the Cascadia Subduction Zone where powerful, recurring earthquakes can cause widespread catastrophic damage to built structures.
- The next major earthquake could happen at any time.



EARTHQUAKE READY BURNSIDE BRIDGE

burnsidebridge.org

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

Multnomah County

Junio de 2017

El Condado de Multnomah está estudiando la opción de hacer modificaciones al puente Burnside para que resista terremotos de gran magnitud.

Acerca del proyecto

Los envejecidos puentes del centro de Portland, incluyendo el puente Burnside, no se construyeron para resistir terremotos de gran magnitud. El Condado de Multnomah está estudiando cómo crear un resistente puente Burnside por donde los vehículos puedan cruzar el río después de un desastre. El estudio determinará qué mejoras habrá que realizar para prolongar la vida útil del puente y prepararlo para resistir un terremoto de gran magnitud.

Un sitio resistente por donde cruzar el río

La calle Burnside es una vía de transporte vital para la región, diseñada para proveer respuesta a emergencias, y realizar labores de evacuación y recuperación poco tiempo después de una catástrofe. La ruta requiere un cruce de río que resista terremotos a fin de apoyar servicios de emergencia, reunir familias, transportar bienes, activar el comercio y ayudar a recuperar nuestra

Protegiendo la ruta de emergencia vital para nuestra región

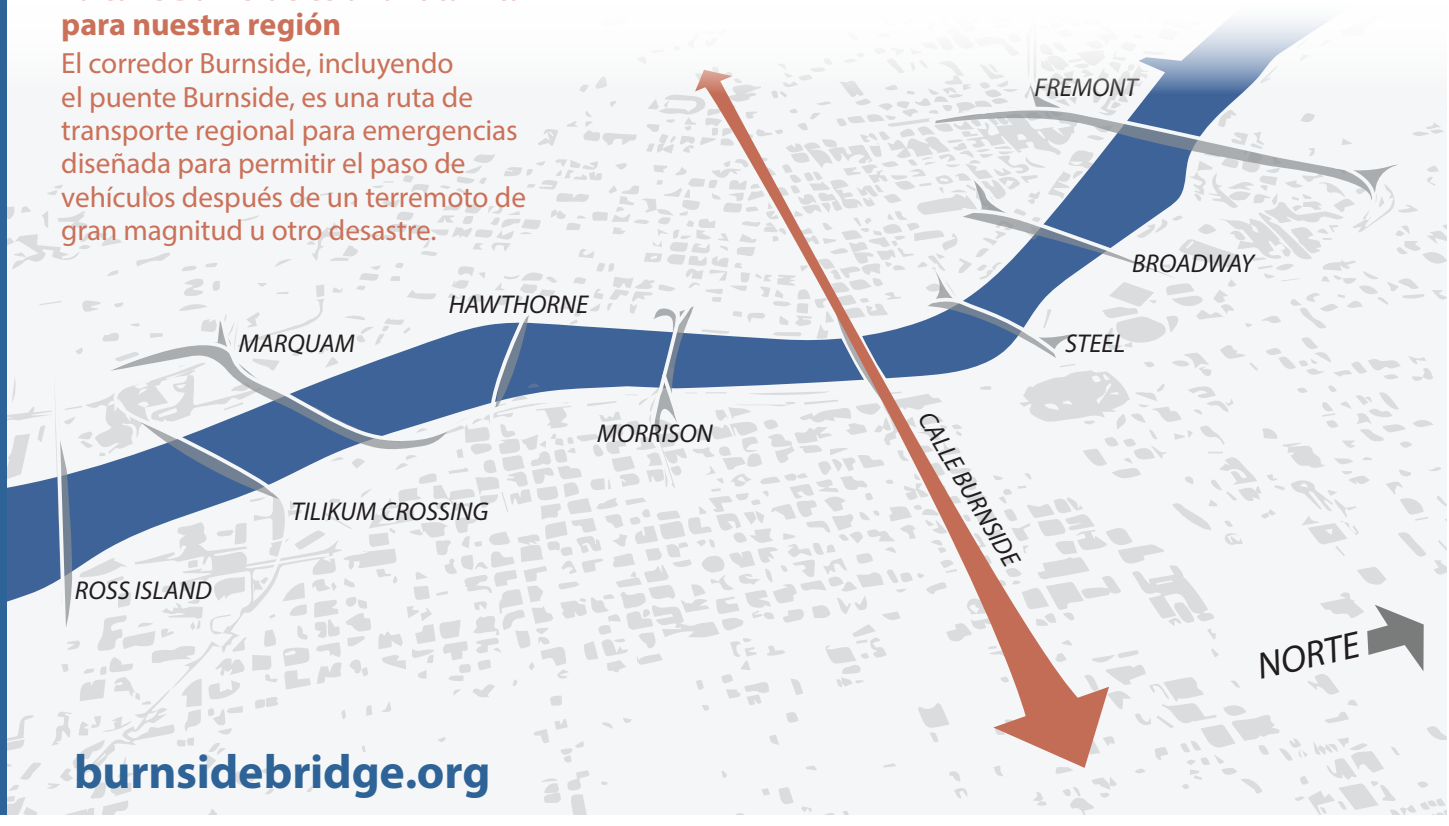
economía. Nuestra región quedará dividida si los vehículos no pueden atravesar el río Willamette por esta ruta vital después de un desastre. Este estudio evaluará una variedad de ideas para cruzar el río e identificará las mejores opciones para crear un cruce resistente que beneficie a nuestra comunidad por generaciones.

Nuestra comunidad necesita involucrarse

Tomará años construir un sitio por donde cruzar que resista terremotos, así que tenemos que trabajar de manera inteligente y avanzar concienzudamente hacia ese objetivo. Es esencial recibir comentarios de la comunidad a fin de obtener la mejor solución para todos.

La calle Burnside es una ruta vital para nuestra región

El corredor Burnside, incluyendo el puente Burnside, es una ruta de transporte regional para emergencias diseñada para permitir el paso de vehículos después de un terremoto de gran magnitud u otro desastre.



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Cronograma del proyecto

Involúcrese

¡Necesitamos que usted participe!

En nuestra comunidad se escuchan muchas voces y hay mucho que considerar. Es vital obtener la participación de toda la comunidad para que nuestra solución refleje valores compartidos y atienda las necesidades de todos nosotros.

El proyecto incluye numerosas oportunidades para que participe el público general a fin de garantizar que el estudio de factibilidad incluya sus necesidades y los asuntos que le conciernen.

Visite **burnsidebridge.org** para:

- Inscribirse a fin de recibir noticias y actualizaciones sobre el estudio.
- Invitar al equipo del proyecto para que lo presente a su comunidad o grupo empresarial.
- Obtener información sobre reuniones, eventos y otras oportunidades para participar.

Siga el proyecto en Twitter

@MultCoBridges, #ReadyBurnside

Para obtener más información, contacte a:

Mike Pullen
Oficina de Comunicaciones del Condado de Multnomah
mike.j.pullen@multco.us
(503) 209-4111

Puntos de interés

Puente Burnside

- El puente se inauguró en 1926
- 40,000 vehículos, 3 líneas de autobuses TriMet, y 2,000 bicicletas y peatones cruzan diariamente el puente.

Calle Burnside: una ruta vital para la región

- Tiene una longitud de 18,7 millas, conecta a Beaverton con Gresham
- Metro designó a Burnside como una línea de prioridad 1 a finales de la década de 1990

Riesgo regional de terremoto

- La región de Portland está situada en la zona de subducción de Cascadia, donde potentes terremotos recurrentes pueden causar daños catastróficos a las estructuras existentes.
- El próximo terremoto de gran magnitud puede ocurrir en cualquier momento.

EARTHQUAKE READY BURNSIDE BRIDGE

burnsidebridge.org

Multnomah County

EARLY STAKEHOLDER INTERVIEW FINDINGS REPORT

Project:	**Earthquake Ready Burnside Bridge**
Date:	May 5, 2017
To:	Megan Neill and Mike Pullen, Multnomah County
From:	Heather Catron, HDR, and Vaughn Brown, JLA Public Involvement

OVERVIEW

Obtaining public, stakeholder and partnering agency input into Earthquake Ready Burnside Bridge is a key value held by the Board of County Commissioners and important to project outcomes. Outreach efforts for the Earthquake Ready Burnside Bridge project were kicked off with initial stakeholder interviews held between December 6, 2016, and January 12, 2017. The project team interviewed 14 project stakeholders who were long-term partners and representatives from key stakeholder community groups, which included community organizations, businesses and Multnomah County Departments.

The purpose of the interviews was threefold: first, to introduce the feasibility study to a core stakeholder group; second, to gather interviewees' initial reactions to project messaging and provide feedback on the most effective ways to keep stakeholders engaged and informed throughout the project; and third, to identify early project issues and opportunities.

For the Earthquake Ready Burnside Bridge Project to be successful, community interests and viewpoints must be considered when identifying and evaluating alternative lifeline crossings. These initial stakeholder contacts were the project's first outreach activity, initiating the ongoing process of listening to the community and incorporating their perspectives into the feasibility study.

This interview report summarizes the feedback received in the early stakeholder interviews. Overall, interviewees expressed widespread interest in the project's intent. There was general agreement on, but varying reasons for, the need for an improved Burnside Bridge. Most interviewees also shared an interest in learning more about the Burnside lifeline corridor and exploring options for a more earthquake-resilient Willamette River crossing.

Feedback received from the interviews will be considered in shaping public involvement activities and during the alternatives screening and evaluation process.

INTERVIEW PARTICIPANTS

Participants in the early stakeholder interviews represent a cross-section of the varied interests surrounding this effort. Community organizations interviewed represent the following constituencies: road and river users, local businesses, social services, emergency responders and coordinating Multnomah County departments.

Community Organizations and Businesses*

- AAA (American Automobile Association)
- AMR (American Medical Response)
- The Street Trust (formerly Bicycle Transportation Alliance)
- Central City Concern
- Central Eastside Industrial Council
- JOIN
- Louis Dreyfus Company
- Old Town/Chinatown Community Association
- OTA (Oregon Trucking Association)

Multnomah County Departments

- Multnomah County Bicycle and Pedestrian Citizen Advisory Committee
- Multnomah County Health Department
- Multnomah County Office of Diversity and Equity
- Multnomah County Office of Emergency Management
- Multnomah County Office of Sustainability

* *The project team invited OPAL, Office of Neighborhood Involvement and Saturday Market to participate. Due to a variety of reasons, these organizations were unable to partake in the initial round of interviews but will be engaged in future efforts.*

KEY FINDINGS

Key Messages

Interviewees were asked to listen to the initial project key messages and then provide feedback on what stood out most. The feedback received emphasized several key items:

- The idea that Portland's downtown bridges are old and need upgrading is a central information point, and interviewees tended to agree this is an important message to deliver. In addition, interviewees shared the key messages should explain why the Burnside Bridge is the priority downtown bridge for upgrading, and concepts of safety and lifeline are important themes to convey.
- Several stakeholders stated the initial key messages placed too much emphasis on the potential earthquake disaster and were too fear-based. There was conflicting feedback about the effectiveness of disaster-focused messaging – some felt this is an effective way to gain interest, while others believe scare tactics are overused or a ruse to get funding.
- Some stakeholders mentioned the messaging shouldn't promise this project can ensure a bridge will be standing in the event of an earthquake. Project messaging shouldn't overpromise what the bridge or this project can deliver.

- Project messaging should use understandable language. There was mixed feedback regarding whether “lifeline” or “earthquake-readiness” is well understood.

Actions Taken to Date: The project team used this feedback to rework and finalize the project key messages.

Study Name, Graphic and Tagline

Interviewees reviewed the draft project graphic, name and tagline. The following is a summary of the feedback received:

- Stakeholders did not have strong reactions to the project name. Comments indicated that the name emphasized earthquake more than the possibility of a new bridge; the word readiness overpromises what the bridge may be capable of during and after an earthquake event; and, finally, the project name could change after the feasibility study is completed.
- There were mixed responses to the project graphic. The version of the graphic reviewed by stakeholders included a seismograph line in a box. While some liked that the graphic represented earthquake risk, others felt it was scary, dysfunctional and confusing. Some remarked the graphic looked like an envelope or the seismograph line looked like an EKG reading. Others suggested the graphic should include bridge elements, illustrate the lifeline connection and/or represent the concept of strength.
- Overall, stakeholders liked the presented project colors.
- Stakeholders shared a few comments regarding the draft project tagline, including: how the word “better” implies an opportunity for vast improvements on a new or rehabilitated bridge, and the word “connected” is subjective, as the public will unlikely be able to use the bridge right away.

Actions Taken to Date: The project graphic has been updated to reflect the feedback. It now emphasizes the bridge and its connection over the river. The project name has been updated to “Earthquake Ready Burnside Bridge,” and the project tagline will remain the same, since the project team does not believe there is a conflict between the tagline’s perceived meaning and the project’s possibilities.

Project Opportunities

Interviewees provided several opportunities to consider with the feasibility study and in later project stages. The following is a summary of the feedback received:

- **Bridge alternatives should allow for multi-modal solutions**. There were several comments about the need to include bike, pedestrian and transit improvements when considering alternatives.
- **Coordinate with stakeholders and agencies that rely on or share responsibilities to maintain the lifeline corridor**. Interviewees suggested coordinating with first responders and emergency managers and encouraged engaging stakeholders and agency partners that share responsibilities for the overall Burnside corridor (from Washington County to City of Gresham), especially jurisdictions.
- **Maximize the impact of the investment** by incorporating opportunities like job training, local purchasing and a bridge design that creates a new community space. Another suggestion was to involve organizations who have preparation plans for a post-earthquake scenario, like cargo bikers and social service agencies. Coordination

and event partnering with earthquake-planning organizations and efforts could be mutually beneficial for both the organization and project.
- **Educate the public** about important topics, such as transportation funding, regional planning, emergency preparedness and the Burnside lifeline corridor.
- **Consider funding sources early on**. One interviewee suggested the project consider whether public/private partnerships could help fund the project. It was also suggested that the project tie into existing plans, like the Regional Transportation Plan and Green Loop.

Actions Taken to Date: Membership of project stakeholder committees includes stakeholders and agencies that rely on or share responsibilities to maintain the lifeline corridor. In addition, project materials and website are being developed to provide educational information about concepts, such as the Burnside lifeline corridor.

Project Questions and Issues

Interviewees posed several important questions and issues for the project. The following points summarize the principal points raised:

- Most interviewees asked about project funding. Many asked how much a bridge replacement or rehabilitation will cost and where project funding will come from. Questions about funding also included why this project should be prioritized over other important spending priorities, such as affordable housing. One interviewee brought up it will be confusing to the public that money is being spent on maintenance now if the bridge will eventually be replaced or rehabilitated.
- Many asked why Burnside Bridge is a priority over other bridges.
- Many wondered about the impacts of construction to the surrounding communities, bridge users and natural environment.
- Questions were raised about who the bridge serves today and whether new features or infrastructure can be included in a new bridge to make it more inclusive and safe with improved bike and pedestrian features.
- Some questioned whether an old bridge, like Burnside Bridge, could be successfully rehabilitated to survive a large earthquake.
- Concerns were raised about site conditions surrounding the bridge following a major earthquake. These included concerns about liquefaction zones on each side of the bridge, potential debris from collapsed unreinforced masonry buildings in Old Town and glass buildings on the east end of the bridge. Others worried the other portions of the Burnside lifeline corridor may be unusable if additional preparation and coordination is not completed. Some asked what the plan will be to control bridge access after an earthquake.
- There is skepticism that a new Burnside Bridge is needed at a high cost and that earthquake preparedness is a ruse to scare up funding to repair the bridge.
- Some were disturbed that Portland is vulnerable now, given it will be years before we have an earthquake-resilient crossing in place. They wondered why this is only being starting now, what happens if there is an earthquake before the bridge is ready, and what will be done to prepare in the meantime.
- Some asked about how community members will be able to participate in the study.

Actions Taken to Date: Project materials and frequently asked questions (FAQs) respond directly to some of the questions and issues brought up. The project team has also committed to

be proactive in listening and responding to stakeholder issues and questions throughout all project phases.

Communications and Outreach

Interview participants were asked to weigh in on the best ways to keep constituents and the larger community informed of and engaged in project activities.

Interviewee responses were mixed regarding how best to communicate to constituents and the larger community. Preferred outreach methods include project emails, an up-to-date website and social media, as well as committee meeting presentations and briefings. Advertising on buses and billboards was also suggested.

Interviewees were asked whether the project website should provide information about both the Burnside Bridge Maintenance Project and Earthquake Ready Burnside Bridge. Most said the two projects should be included on a single website page but with clear separation to avoid confusion. A suggestion was made to tie the two projects together by connecting the short-term project (maintenance) with the long-term project (resiliency).

Other website suggestions included offering opportunities for stakeholders to provide input directly on the site and to make it an interactive experience. Others suggested the website share information about personal and community preparedness. Finally, it was suggested the website include videos that tell the project story.

Actions Taken to Date: The Burnside Stakeholder Engagement Plan included the suggested outreach ideas. A website plan has been developed, following the advice to post the Maintenance and Earthquake Ready Projects on the same page and tell the story of how today's maintenance is part of the larger plan to have a reliable Burnside Bridge in place until an upgraded river crossing is ready.

Additional Stakeholders to Involve

Interview participants were asked who else should be involved in the study. The following summarizes additional stakeholders by categories. A detailed list of recommended contacts is included in Appendix C and includes the following.

- Potential Stakeholder Representative Group members
- State and local agency contacts
- Social justice groups (including OPAL, Verde, Union Gospel Mission, Street Roots)
- Transportation groups (including Oregon and SW Washington Families for Safe Streets, Oregon Walks, Better Block PDX)
- Labor leaders (including Metro Alliance for Workforce Equity)
- Hospitals
- Schools (including K-12 and higher education)

Actions Taken to Date: Stakeholder Representative Group membership deliberations considered interviewee suggestions to maximize broad community representation. Other suggested stakeholders will be invited to participate in project outreach efforts, such as project briefings, surveys and open house events.

Online Survey Summary Report

Survey Overview

An online survey was made available between July 15 and August 21, 2017 for the purpose of gathering input about the public's priorities, concerns and questions about the Earthquake Ready Burnside Bridge project. The survey collected 170 responses. It was promoted online on Multnomah County's Facebook and Twitter pages, as well as by email to 340 stakeholders on the project's interested parties list.

The survey presented a brief project summary, including the project overview video, followed by four open-ended questions and a set of questions pertaining to respondents' project communication preferences, use of the bridge and demographics.

Open-ended Questions

The survey included four open-ended questions aimed to gather input regarding the community's thoughts, concerns, and questions about the project.

Question 1: What should Multnomah County consider as we begin to look at options for an earthquake ready river crossing?

The 152 responses to this question resulted in a handful of common themes:

Safety: Desire to protect the well-being of bridge users and neighbors both during an earthquake event and afterwards, as well as preserving capacity for emergency response vehicles. People also expressed concern for the everyday safety of pedestrian and bicycle users on the bridge. Examples include:

- *"Public safety and ease of emergency traffic getting priority first to cross in an emergency."*
- *"Protected bike lanes and wider sidewalks to make travel safer between downtown and the burgeoning Burnside bridgehead on the east side (think Better Naito or the Morrison Bridge)!"*

Getting a safe crossing in place quickly: Concern that the project moves urgently and quickly, considering that a major Cascadia Subduction Zone earthquake could happen at any time. Examples include:

- *"Replace the bridge now."*
- *"Time is of the essence! The sooner the bridge can be made seismically safe, the better."*

Reliability and resiliency: Need for the new river crossing to withstand an earthquake and be useable immediately afterward, as well as support day-to-day multimodal function. Examples include:

- *"In addition to making the crossing earthquake-ready, please design to ensure that everyday functionality is able to serve all residents of the city (i.e. include dedicated transit lanes, protected bike lanes, wide sidewalks). These facilities would also allow emergency services to bypass potential gridlock in an earthquake scenario (or even just during rush hour traffic)."*

Enhance multi-modal use: Desire to make improvements to multimodal features on the bridge, such as protected bike lanes, transit-only lanes, or active transportation facilities. Examples include:

- *"Would love to see a better-protected bike lane and wider sidewalks (make things like the 2015 pedestrian fatality less likely). And a dedicated bus lane would be AMAZING, as someone who's spent way too much time on the [TriMet #20 bus] watching what should be a 3-minute trip over the bridge stretch to 15."*
- *"Non-car traffic! Add protected bike lanes, bus only lanes, wider sidewalks. And please improve the west side connections to and from the bridge. It would also be good to have a ramp down to the east bank esplanade, instead of stairs, which aren't accessible for those using wheelchairs, strollers, bikes, or other mobility devices."*

Design suggestions: Ideas on specific design features for a new bridge, or something entirely different, like a tunnel, pontoon bridges, or ferry boat service. Examples include:

- *"Have the highest quality, military heavy equipment capable floating pontoon bridges housed in 9 quake proof structures immediately adjacent to the bridge location... more reliable and much cheaper than a half billion rebuild of a new bridge."*

Question 2: What opportunities do you see with this project?

Three main themes emerged from 135 responses to this question:

Making multi-modal improvements: Desire to make improvements to multimodal features on the bridge. Examples include:

- *"BRT lanes, protected bike lanes, and first-class pedestrian infrastructure would improve the bridge's usability for citizens who aren't using personal cars. Given the beautiful views of Portland from the top of the span this could be a draw — not just a drawbridge."*
- *"Making the bridge work for PEOPLE rather than just cars."*

Raising general public awareness of the earthquake threat: Interest in making the public aware of the earthquake and emergency preparedness. Examples include:

- *"This should be the start of a large public conversation on the results of a major earthquake in the Pacific Northwest."*
- *"Learning how bridges react in an earthquake. Learning how to make both sides of PDX more resilient. Using this as an opportunity to deal with the other bridges, and the big fuel tanks near the river, which will burst when the quake hits!"*

Creating jobs: Interest in how the project can help create jobs. Examples include:

- *"Jobs for local area and development potential."*
- *"Job creation, general earthquake preparedness awareness."*

Question 3: What questions do you have about this project?

This question received 104 responses, many of which show that people are thinking about the design and financing of a new river crossing and what local government agencies are doing to prepare for an earthquake disaster. Three of the most prominent themes that emerged are:

What option is the best approach to solving the problem? For example:

- *"Does a single bridge structure allow for the emergency response necessary for this type of disaster? Or, does a second crossing need to be created at another point up or down river?"*

How much will it cost, and how is it paid for? For example:

- *"Is there funding yet? Where from?"*
- *"Will you spread the cost across the board? Property taxes are too high already."*

How quickly can the project be built? For example:

- *"What can we do to help hasten this project and others like it? This should be treated like an emergency."*

Question 4: Is there anything else you want to tell us?

The 97 responses to this question covered a broad range of sentiments. Many respondents reiterated what they had expressed in their answers to the previous three questions. Others urged fiscal constraint, hoped that the project would avoid getting caught up in bureaucratic red tape, or expressed appreciation that the project was underway. Examples include:

- *"Thanks for making this a priority project. It's overdue."*
- *"Please put in dedicated bus lanes and protected bike lanes. Continuing to throw away all our money and space on cars is unsustainable."*
- *"Please don't over-design this bridge. Nothing too fancy and stick to the needs, not the wants, for this bridge project."*
- *"The bridges of Portland are part of the city's character and though all are in need of seismic repair or replacement, I would hope that any replacement bridge adds to the city's atmosphere."*
- *"I am excited that Multnomah County is anticipating our transit needs and soliciting public feedback in a convenient form. We are a city of bridges, and our bridges should be built to reflect who we are."*

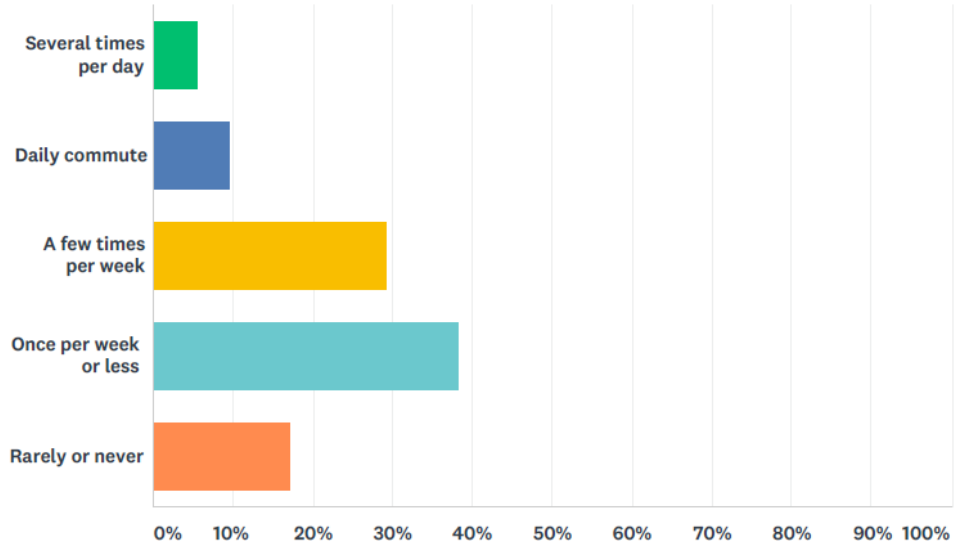
Other Questions

Questions 5–10: Contact information and staying informed

These questions were related to contact information and preferences. About half of respondents indicated that they would like to be added to the email list, and provided their contact information.

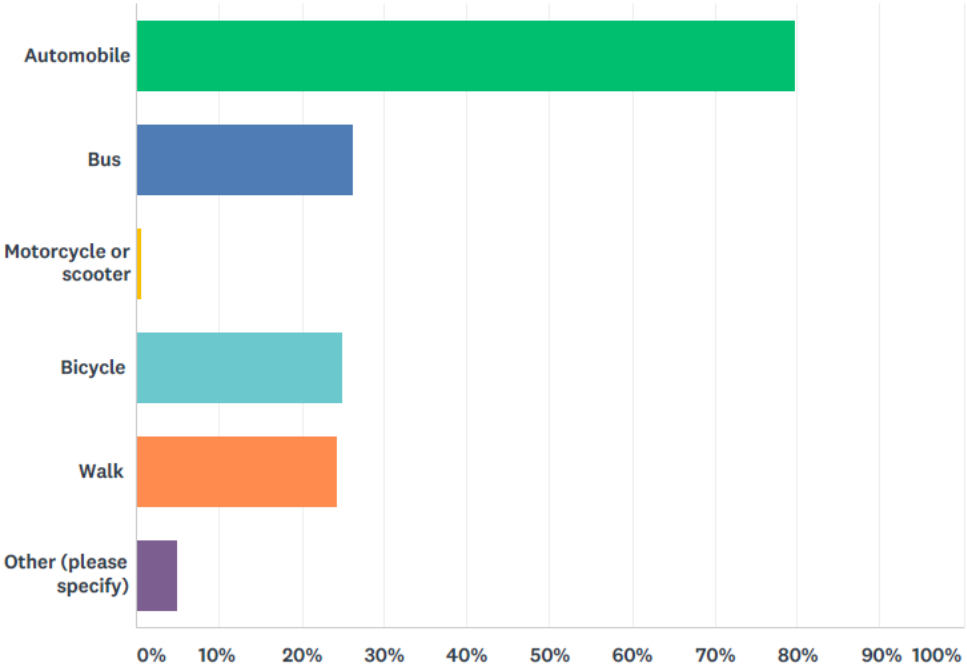
Question 11: How often do you use the Burnside Bridge?

The plurality of respondents indicated that they use the bridge "once per week or less" (38%), and a total of about 45% of respondents use it a few times per week or more frequently.



Question 12: How do you usually cross the bridge? (Check all that apply)

Most respondents (80%) selected “Automobile” as how they usually cross the bridge. About one in four respondents indicated that they use the bus, bicycle, and/or walk. Answers were not mutually exclusive, so some respondents chose more than one option.



Meeting Minutes

Project:	Multnomah County | Earthquake Ready Burnside Bridge
Subject:	Emergency Management Workshop #1
Date:	Wednesday, June 14, 2017
Location:	HDR Office – 18 Downing Conference Room 1001 SW 5th Ave, Suite 1800, Portland, OR 97204
Dial-in:	866-583-7984 (Code 1385014)
Attendees:	Megan Neill, Multnomah County Joanna Valencia, Multnomah County Alice Busch, Multnomah County Chris Voss, Multnomah County Laura Bruno, City of Portland (RDPO) Carmen Merlo, City of Portland (PBEM) Drew DeVitis, City of Portland (PBOT) John Wheeler, Washington County Alex Ubiadas, TriMet Jay Wilson, Clackamas County Mike Harryman, Oregon State Resilience Office Geoff Bowyer, ODOT Region 1 Malu Wilkinson, Metro Allison Pyrch, Hart Crowser Heather Catron, HDR Steve Drahota, HDR Cassie Davis, HDR Christina Tomaselli, HDR Stacy Thomas, JLA Jeff Heilman, Parametrix

Meeting Purpose and Overview

- Overview of current transportation assumptions in existing emergency management plans
- Understanding of how these plans work together and plan update/development activities and schedules
- How the Earthquake Ready Burnside Bridge (ERBB) project relates to and can be incorporated into on-going emergency management planning efforts
- Messaging related to magnitude of event and recovery efforts
- Opportunities for further engagement/coordination of project with ongoing emergency management efforts

ERBB Project Overview

- Megan Neill provided an overview of Multnomah County's Earthquake Ready Burnside Bridge project.
- In Multnomah County's 2015 *Willamette River Bridges Capital Improvement Plan*, the Burnside Bridge was identified as the number one priority for a seismic resiliency project. She explained that the County is focusing on the Burnside Bridge because of its location on the Burnside Street regional lifeline route. Additionally, the other County-owned bridges in central Portland (Broadway, Morrison and Hawthorne) have structural issues that make them especially vulnerable to earthquake damage and more difficult to retrofit for seismic resiliency. Finally, the other bridges are prone to failure caused by the collapse of other non-resilient bridges crossing above them.

- The goal of the feasibility study is to recommend alternatives for creating a resilient river crossing. The study is expected to be complete by fall 2018. After that, a National Environmental Policy Act (NEPA) study will evaluate the alternatives, followed by design and construction. Funding is currently being sought for the NEPA phase.
- Heather Catron provided an overview of the current effort for this initial feasibility study phase.

Regional Planning Efforts

- The group viewed an interactive map of the region illustrating Emergency Transportation Routes (ETR) and emergency plans previously provided by various local agencies as well as area hospitals, fire and police stations and Basic Earthquake Emergency Communication Nodes (BEECNs) in Portland. The map also showed where bridges and overpass structures are in the region and along the ETRs.
- Megan Neill noted the County's desire for open communication throughout the region and collective momentum towards investing in the regional lifeline.

Comments/Feedback
○ City of Portland is working on a Unreinforced Masonry Project (URM) that recommends URM buildings within the city of Portland be required to comply with a new, mandatory seismic strengthening program. ○ East side development reduces risk of debris from URM buildings. ○ Liquefaction is a concern.
○ Maintaining fuel transportation along the west/east route is a regional concern for Oregon Department of Energy (ODOE). Transporting fuel by air is complicated and can only be transported in small quantities at a time. ○ Access to hospitals is also a concern.
○ Do tunnels restrict emergency medical responders? ○ There are fire codes for hazardous materials transported in tunnels. ○ If the tunnel alternative proved feasible and selected, Portland would face an identity change—switching from "bridge town" to "tunnel town."
○ Questions on how outcome-based response and planning efforts help change people's mindset. Likes the forward thinking approach of this project. Value of replacing a bridge after an event can't be quantified. Value of investment now is important.
○ Public knowledge of earthquake risks is growing.
○ Liquefaction and geotechnical risk analysis will be included in ERBB cost estimate during this phase of analysis. ○ City of Portland's Regional Disaster Preparedness Organization (RDPO) HAZUS model for nearby counties illustrates debris data including liquefaction, landslide susceptibility, etc.; updated info by summer 2017. Planning regional fuel tabletop exercise of regional protocols beginning December/January. ○ Mayor has a "Build Portland" initiative with potential to invest in infrastructure. How may this initiative coincide with ERBB in the future? ○ Portland Bureau of Emergency Management (PBEM)'s transportation management plan (post event) seeks to get high-frequency bus service up and running again; looking at routes across Broadway and Steel Bridges and current potential re-routes for TriMet.

Comments/Feedback
Need to consider the demand management post-event of high-frequency TriMet routes for those who travel into the Portland Metro area from outside areas. Consider structure weight (all lanes potentially filled with buses). Trains won't cross Steel Bridge (abandoned in place anticipated). Max light rail lines will break (refer to Japan event example) resulting in live wires on the street. 6-10 light rail trains carrying 100-200 people each will be abandoned in place and the associated management effort for this. Designated transit lanes would be available post-event until light rail service is functional. What's left functional on east and west sides will only work on their side of river if able to restart for months.
○ Numerous bridge alternatives are being considered at this phase; retrofit-only option really isn't an option at this point due to pass/fail criteria.
○ Burnside Bridge does not carry major regional electrical/ utilities across it as compared to other fixed span Willamette River bridges
○ TriMet assumes all regional ODOT emergency transportation routes will be in place for use post-earthquake after damage assessment and debris removal. ○ ODOT priority is the emergency transportation routes (ETR) for debris management plans (DMP). ○ First step of the debris management plan is the damage assessment of ETRs. ○ Engineers not aware of all DMPs. ○ How do landslide risks on the west side effect Burnside as an ETR?
○ ODOT I-205 lifeline route is a priority.

Public Outreach

Messaging Related to Magnitude of Event and Recovery Efforts

Comments/Feedback
○ This and other resilience projects are long term. Need to emphasize to public that these resilience projects are not short term and take long term commitment. ○ House-hold level of preparedness expectations and level and duration of disruption to daily life (potentially no water or power for a year); once you accept, you can start to prepare. Some public response is that it is an expert's problem to worry about when in fact everyone has a role in getting prepared ○ Project should take into consideration the need for movement of large/heavy vehicles.
○ Can't have public policy standpoint be 1000 years out ○ 1970's PSA "the day before" example. Public wants a target. Consider it'll happen tomorrow ○ Public is more informed and is asking more technical questions. ○ How to integrate this into the larger resilience conversation. ○ The group showed interest in ERBB public information materials and opportunities to share information.

How Earthquake Ready Burnside Bridge Relates to Other Plans

- Late June there will be a public outreach and social media launch and survey (along with public release of the animation and videos). If emergency management staff would like to film a sound bite for these, please let Megan know.

- Showed draft ERBB emergency response video (not yet released)
- Showed ERBB animation (not yet released)

Comments/Feedback
○ City released public opinion survey (Merlo and Neill will discuss offline)
○ Discussed messaging and regional connectedness of other earthquake planning efforts; not seeing that yet but there is interest in better coordination ○ How does this project align conversation towards cohesive planning around ETRs and transportation? ○ The economic drivers need to be included in outreach efforts - city vitality, business community, chamber of commerce, etc. ○ EM agencies appreciate items or coordination of presentations at outreach events. Simple handouts are great, even better if additional outreach attendance is available. ○ Ongoing efforts: Transportation Recovery Plan, regional framework (not a plan), not seeing the economic drivers (not just EM), city's vitality and development community could find a reason to believe in this effort. ○ Share materials and possible attendance for public outreach
○ September is National Preparedness Month (NPM) ○ October is Earthquake Preparedness Month
○ Messaging needs to be multi-jurisdictional ○ How can we better work together, share together and collaborate work efforts? ○ Group would like to meet again in future.

Links:

- RDPO
- Regional Recovery Planning (upcoming project)
- Earthquake Impact Analysis with DOGAMI
- Earthquake Economic Impact Analysis
- Regional Fuel Management Tabletop Exercise (upcoming project)
- Fuel planning
- OSSPAC

Online Briefing and Survey Summary
Spring 2018

Introduction

Multnomah County launched an online briefing this spring to provide the public with an update on the initial screening results and the Earthquake Ready Burnside Bridge project's next steps. The online briefing included a survey to gather input on what else Multnomah County should consider as options are evaluated further. The online briefing received almost 1,800 views between March 12, 2018 and April 27, 2018.

Notification

The online briefing was promoted in several ways, including:

- **Media release** – A media release was distributed to local media sources and agency public information officers.
- **Stakeholder email** – An email was sent to almost 400 project stakeholders to inform them of the online briefing.
- **Social media –** Multnomah County promoted the briefing on their Facebook and Twitter accounts throughout the time it was available.

Public Comment Key Themes

The following graphic summarizes the key feedback themes submitted through the online briefing survey. A total of 65 responses were collected between March 12, 2018 and April 27, 2018.

Question 1: Tell us what you would like us to consider as we evaluate options further.

The 57 responses to this question resulted in the following common themes:

Earthquake resiliency. Participants commented on the importance of improving earthquake resiliency for the region.

Examples include:

- *"If we want to actually improve our region's disaster resilience, we must do everything possible to ensure that at least one river crossing is structurally sound after the immediate disaster has passed."*
- *"Make sure that we have a bridge that can withstand a major earthquake and allow emergency responses to go between downtown and the east side."*

Enhance multi-modal options. Comments illustrated a desire to make improvements to multimodal features on the bridge, such as protected bike lanes, transit-only lanes, and other active transportation improvements.

Examples include:

- *"You need to make AMPLE space for non-motorized travel. Please consider our climate change goals, and how this bridge can support public transit, biking, and walking."*

- *"Support for non-motorized transportation is key, especially right after the event when people who cannot get their cars out need to cross back to the east side (and vice versa)."*

Timeliness. Comments showed support for having the project move quickly, considering that a major Cascadia Subduction Zone earthquake could happen at any time.

Examples include:

- *"Project timeline. How soon can we have a bridge ready to withstand an earthquake? How long will the construction impact existing traffic needs?"*
- *"Efficiency. Which plan can best be completed in the shortest amount of time."*

Support for replacement options. Participants expressed support for a full bridge replacement rather than the retrofit options.

Examples include:

- *"Rebuild everything, I don't trust any retrofitting. I don't care how long it takes and if we're temporarily forced to deal with the traffic inconvenience. Lives are on the line now, and our future descendants will be grateful."*
- *"Please strongly consider doing a complete replacement. Although it costs more in the short term, in the long term, modern engineering will provide a longer lasting, and safer bridge."*

Coordinated emergency response. Several ideas were submitted for adding components to the bridge to assist in disaster notification and response.

Examples include:

- *"Ensure there is adequate pre-positioned debris-clearing equipment on both sides of the bridge kept in a semi-readiness state. A special team of downtown-working NET (neighborhood emergency team) volunteers (especially those with heavy machine experience) should be trained/certified to use this equipment. Ensure public sirens (air-raid style) are installed, hooked up to ShakeAlert."*
- *"Is there a way to connect other important aspects of disaster recovery to the bridge? Will it be a hub for communication, supplies, or simply a pass through that we can count on?"*

Cost effectiveness. Participants made several comments on the importance of being fiscally responsible.

Examples include:

- *"Which of the two remaining options will be most cost effective?"*
- *"Focus on seismic resiliency (most important) and financial stewardship."*

Additional options to consider. Participants suggested evaluating ferry service or a floating bridge as other earthquake-resilient crossing options.

Examples include:

- *"Have floating pedestrian/bicycle temporary bridges ready to deploy in several locations across the river. Or ferry service if concerned about floating bridge blocking boat traffic."*
- *"Float an emergency crossing 'bridge' type thing in the river so earthquake won't effect it?"*

Approaches and footings. Comments were made regarding the seismic resiliency of bridge approaches and footings.

Examples include:

- *"Approaches. This bridge must have approaches that will withstand the earthquake, not just the bridge itself."*
- *"If at all possible, you need to replace the bridge AND ensure the footings are seismically stable to withstand a 9.0 earthquake."*

Historic significance. Several comments touched on the hope for maintaining original design elements and archival style.

Examples include:

- *"The current railings and 'towers' on the bridge are a great reminder of a bygone time when buildings & bridges were made to be beautiful as well as functional. I hope they will be salvaged/ reused if a new bridge is built."*
- *"I hope the project decision makers consider the historical significance of the existing bridge as they're choosing a preferred alternative."*

Transparency. Some comments touched on the need for the process to be open to the public. Examples include:

- "*Transparency is key."*

Question 2: Is there anything else you would like the project team to know?

There were 35 responses to this question. Many of the responses echoed the previous themes included with the responses to Question 1.

Key themes included:

Safety:

- *Quote: Safety and long-term survivability must absolutely be prioritized over short-term cost savings. Countless lives will be impacted by this choice.*

Timeliness:

- *Quote: For those of us that live on one side of the river and work on the other, this bridge improvement can't happen fast enough.*

Coordinated emergency response:

- *Quote: The plan for the bridge should be coupled with a detailed action plan for seismic stability and reduction of debris potential along the rest of the Burnside route.*

Kudos:

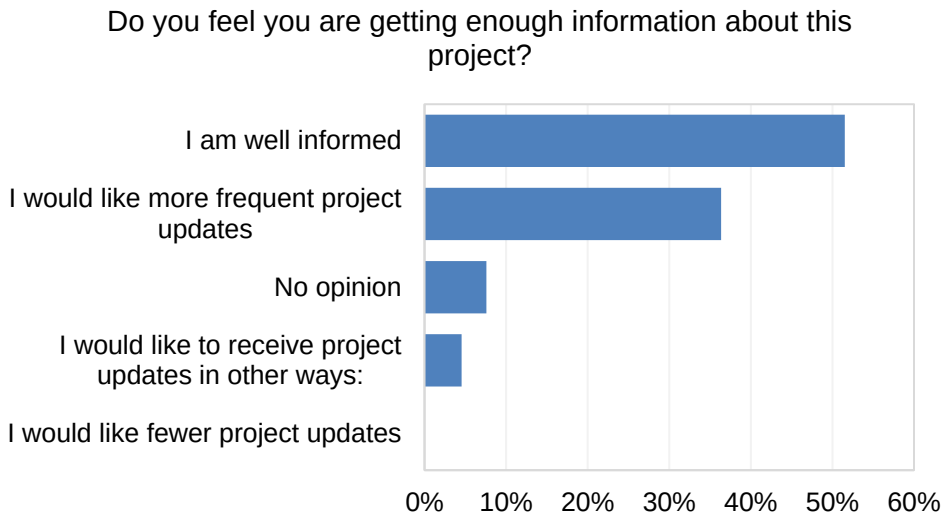
- *Quote: You're doing a great job at advancing this project. Keep up the good work!*

Communication Preference Questions

The survey asked three questions to better understand how to inform community members of about project activities and progress.

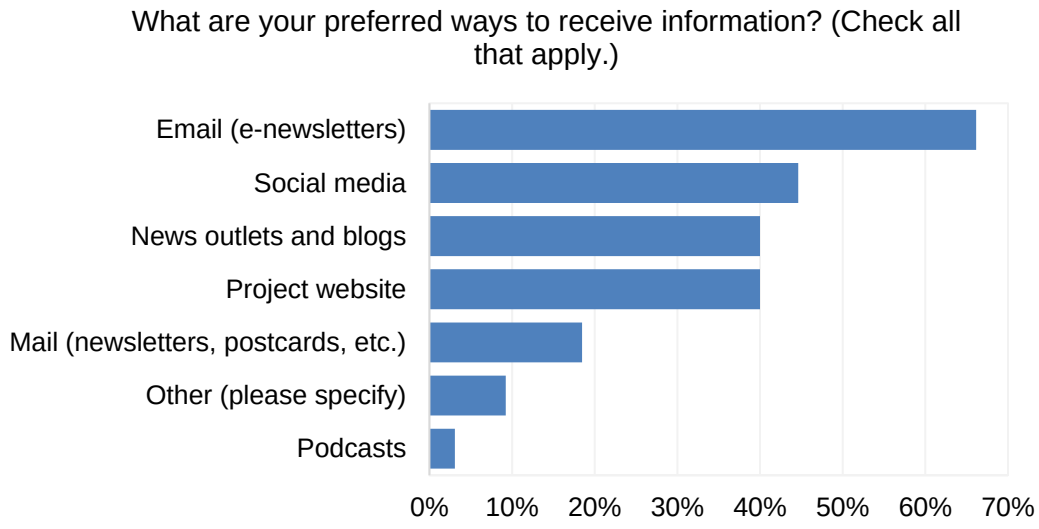
Question 3: Do you feel you are getting enough information about this project?

The majority of respondents indicate being well informed.



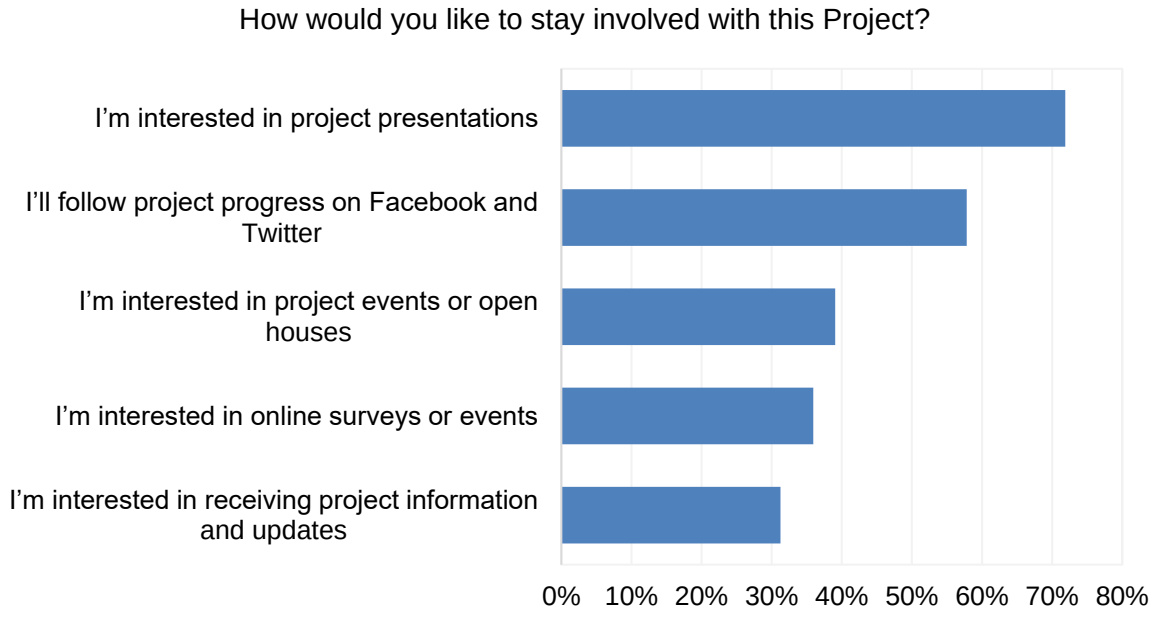
Question 4: What are your preferred ways to receive information?

The majority of respondents indicate email as the best form of communication, followed by social media, and the project website and news outlets/blogs.



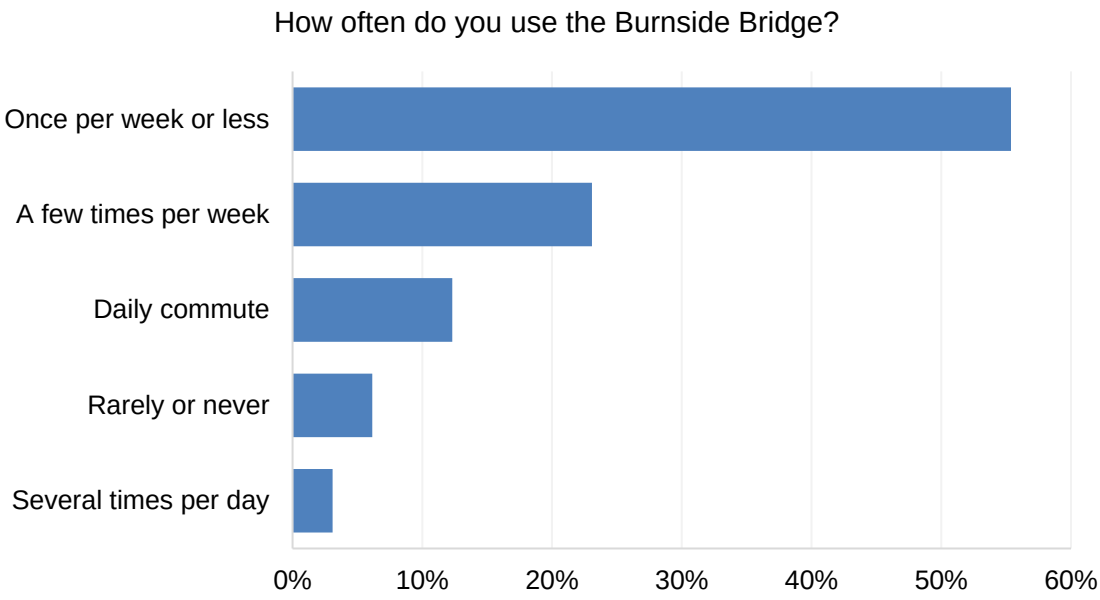
Question 5: How would you like to stay involved with this project?

The top two ways respondents would like to stay involved with the project is through project presentations and social media.



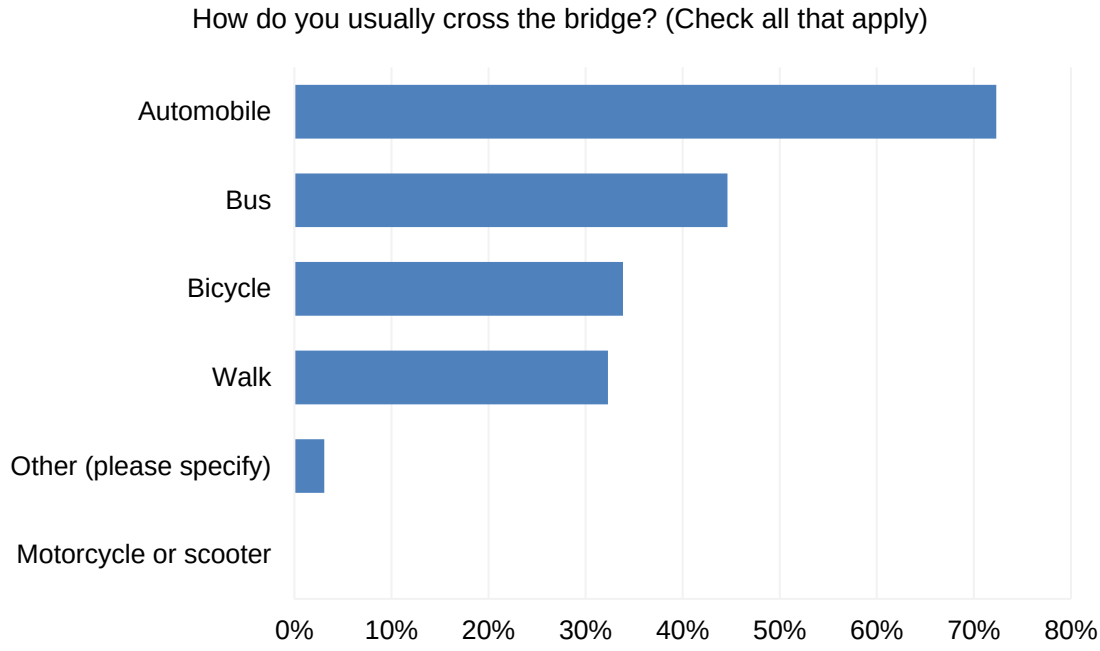
Question 6: How often do you use the Burnside Bridge?

The majority of respondents use the bridge "once per week or less," or "a few times per week."



Question 7: How do you usually cross the bridge?

The majority of respondents cross the bridge by car or bus.



Demographic Information

The survey asked participants a series of demographic questions. These questions were optional.

- **Age:** Respondents ranged in age from 16 to 84 years of age, with an average age of 48 years old.
- **Gender:** Fifty percent of respondents were male, forty-four percent were female, and five percent responded as “other.”
- **Primary language spoken at home:** All respondents primarily speak English at home.
- **Ethnicity:** Eighty-nine percent (89%) of respondents identified as Caucasian, four percent (4%) responded as Hispanic, and two percent (2%) as Asian or Pacific Islander. Respondents could choose more than one answer.

Stakeholder Briefings Summary

Project briefings have provided an effective way to keep key stakeholders informed of the Earthquake Ready Burnside Bridge Project and offer opportunities to gather input. Project team members proactively engaged key stakeholders by reaching out and offering project briefings and presentations to community and government organizations, elected officials and educational institutions. By visiting the venues of existing organizations, the project team expanded the depth of its stakeholder outreach. Project information materials including fact sheets and the website offered interested groups opportunities to request a project briefing. The project team collected feedback from these events and shared it regularly among the team to inform the study.

Through these efforts, the project team met with 35 community groups, government agencies and elected officials, and educational organizations, including:

Community Groups

- Kerns Neighborhood Association
- Buckman Community Association
- Multnomah County Bike and Pedestrian Committee
- Night Strike
- VOZ
- Mercy Corps
- Burnside Skatepark
- Multnomah County Disability Services Advisory Council
- Portland Historic Landmarks Commission
- Central City Concern
- Portland Business Alliance
- Portland Rescue Mission
- Old Town China Town Community Association
- Central Eastside Industrial Council
- Portland Design Commission

Government Agencies and Elected Officials

- Federal Highway Administration
- Oregon Department of Transportation
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- Port of Portland
- Oregon Senator Jeff Merkley's Office
- Regional Disaster Preparedness Organization Steering Committee
- Portland Bureau of Transportation
- Oregon Representative Barbara Smith Warner
- City of Gresham
- Multnomah County Board of Commissioners
- Metro Joint Policy Advisory Committee on Transportation
- Metro Transportation Policy Alternatives Committee
- Multnomah County Health Department
- Bureau of Development Services
- East Multnomah County Transportation Committee
- Regional Public Information Officers

Educational and Professional Organizations

- University of Portland
- Professional Engineers of Oregon
- American Society of Civil Engineers Oregon Chapter

What We Heard

In meeting with people and organizations that reflected broad interests and viewpoints, the project team gathered a wide range of input. Feedback received reflected the following topics and themes:

- **Bicyclists and pedestrians** – Consider facilities that improve safety and visibility for bicyclists and pedestrians and improve transportation connectivity. Consider coordination and alignment with City of Portland Comprehensive Plan and Vision Zero.
- **Commuters –** Interest in ways to support all modes productively. Provide seamless connection to street network.
- **Freight –** Burnside is an important route for some freight. Consider freight access needs.
- **Transit –** Consider ways to improve transit over the bridge.
- **Seniors and people with disabilities –** Consider how the bridge can be designed to accommodate seniors and people with disabilities.
- **Historic/landmarks –** Consider options that minimize impacts to historic landmarks.
- **Neighborhoods, residents and property owners –** Support getting a resilient crossing in place sooner than later. Interest in ways to support neighborhood resiliency. Minimize impacts to properties.
- **Social services** – Many social service providers are located near the Burnside Bridge. It is important to maintain access to these services for vulnerable populations.
- **Minority communities and workers' rights –** Interest in ways to improve contracting opportunities for minority communities.
- **Parks and recreation –** Minimize impacts to parks and opportunities for recreations near, around and underneath the bridge including the Burnside Skatepark.
- **Businesses –** Interest in building capacity to improve access to businesses in the Central City. Concern about traffic and impacts during construction.
- **Ports –** Keep in mind that the river provides an important route for Port access.
- **Emergency preparedness –** Support for a resilient Burnside crossing and interest in opportunities to coordinate on local and regional emergency preparedness efforts.
- **Health –** Consider designs that improve access, safety and equity. Consider how project may influence affordable housing.
- **Land use and development –** Consider how the project may impact or interconnect with future urban land use and development in Central Eastside and Downtown.

Meeting Summary Notes

Project:	Earthquake Ready Burnside Bridge
Subject:	Social Services Workshop
Date:	Tuesday, July 31, 2018
Time:	11:30 AM - 1:00 PM
Location:	Mercy Corps (Gallery Room) – 43 SW Naito Parkway, Portland, OR

Project Team Present	
Megan Neill	Multnomah County
Mike Pullen	Multnomah County
Emily Miletich	Multnomah County
Jessica Vega Pederson	Multnomah County Commissioner
Chris Fick	Multnomah County
Heather Catron	HDR
Cassie Davis	HDR
Alex Cousins	EnviroIssues
Mari Valencia	EnviroIssues

Stakeholders Present	Organization
Don King	Home Forward
Gary Cobb	Central City Concern
Lesley Snider	Bridgetown Night Strike/Because People Matter
Peggy Vanek	LifeWorks Northwest
Tesia Eisenberg	Mercy Corps
Kristi Bugge	Salvation Army Female Emergency Shelter
Will Harris	JOIN
Peter Kelley	Union Gospel Mission
Emily Rochon	Portland Police Bureau
Timothy Desper	Portland Rescue Mission
Bill Meadowcroft	Portland Rescue Mission
Liv Jenssen	Multnomah County Dept. of Community Justice

Welcome and Introductions

Commissioner Jessica Vega Pederson welcomed everyone present and opened the meeting. She thanked the social service agency representatives for their participation in this important process and expressed how impactful the Earthquake Ready Burnside Bridge project will be for the region. She explained that none of the existing Willamette River bridges between the Sellwood and Sauvie Island bridges have been built to fully withstand the Cascadia Subduction Zone (CSZ) earthquake but the Burnside Bridge, when updated, will act as a critical path to get from one side of the river to the other, and across the region, when the next CSZ earthquake strikes.

Commissioner Vega Pederson noted that the Burnside project is transitioning from the feasibility study phase to the environmental study phase. Hearing from a broad range of community members, especially from participants in the room and the constituents they serve, is critical to the project. Two public open houses are scheduled for September 13th and 25th to receive community feedback that will help guide the scope of the environmental analysis. The project team is recruiting community members to join a Community Task Force and she invited participants at this meeting to reach out to Mike Pullen with Multnomah County if interested in serving.

Project Overview

Megan Neil, Multnomah County project manager for the Earthquake Ready Burnside Bridge, provided an overview of the Feasibility Study phase via a Power Point presentation. As part of this, Emily Miletich, Multnomah County project manager for the Burnside Bridge Maintenance Project, gave a quick overview of current and upcoming construction maintenance on the bridge. In addition, Heather Catron, project manager for the HDR consultant team, provided an update about the upcoming environmental analysis phase for the next three years. Please see the attached PowerPoint presentation for more details.

Questions participants asked during the presentation (responses in bullets):

Has there been a conversation about using water taxis as a crossing alternative?

- Water taxis have been considered as an option but were not recommended to be advanced. Other agencies and partners such as Portland Spirit are looking at water taxis as a possibility for local river transport, however. A CSZ would likely cause much river debris which would be hazardous for people attempting to use the river immediately after the earthquake.

Did the resiliency criteria include a soils analysis?

- Liquefiable soils have been identified and all four alternatives are designed to withstand liquefaction. The soils are more prone to liquefaction on the east side of the Willamette River more than the west. Project engineers are preparing for liquefaction mitigation.

Discussion Session

Alex Cousins, EnviroIssues, facilitated the group discussion. Responses to discussion questions are paraphrased below as bullets.

How do you and your clients use and interact with the bridge?

- The Portland Rescue Mission depends on the bridge to provide their services to their constituents. Roughly 20,000 meals a month are provided to community members and many use this bridge.
- Other participants also stated that the Burnside Bridge is the main downtown crossing utilized to provide their services and is a lifeline for community members to cross the river and access crucial services.
- The area under the bridges can be dark and scary. Under the Burnside is also a home to many homeless people. Participants recommended the project team respect the space as a home to vulnerable community members and also consider positively activating the area under the bridge. Alex asked for suggestions on how to do so and received the following responses:
    - Skate park
    - Miniature golf course
    - Shopping or tourist attractions similar to what Seattle has done with areas under and adjacent to the Alaska Way Viaduct at their waterfront harbor
    - Additional lighting – natural and artificial
    - "Saturday Market"
    - Showers and restrooms
    - Kitchens
    - Place making at each end of the bridge

How can a revitalized Burnside Bridge improve the facilities and services you offer?

- If the bridge improvements include upgraded bike lanes, wider sidewalks and ADA accessibility this would improve safety and mobility for pedestrians and cyclists. This includes staff members who depend on the Burnside Bridge to reach the social service agencies where they work.
- Participants recommended the project team include bridge improvements that would make traveling more pleasant and safer for people in wheel chairs or using crutches and

even people who don't walk at fast speeds. All these things matter. There are many issues regarding pedestrian safety at the west end of the bridge today.

What is the best way to keep you and community members informed?

- Meetings with service providers and the project team like today's meeting (all agreed to this)
- Email and mail (Alex noted everyone present has been added to the project mailing list).
- Workshops with service providers and their constituents.

Are there other things Multnomah County should be considering for the environmental review?

- Feedback and participation from vulnerable populations throughout the project is important.
- Participants suggested community members from vulnerable populations serve on the Community Task Force. A way to do this is for each service provider to recommend a participant with capacity to take this responsibility on. Another suggestion could be to recruit service provider staff who have experienced homelessness or other challenges experienced by vulnerable populations.

Questions participants asked during the discussion (responses in bullets):

Did the project team consider seismic impacts from new development, especially protecting the lifeline corridor in the face of all these new buildings being built along it?

- Older buildings with unreinforced masonry are the biggest threat more so than new construction. The City of Portland is coming up with a plan to reinforce older masonry buildings. It will be important for all agencies to identify the region's critical infrastructure. This project can be a catalyst to prioritize investments to ensure future lifelines.

Is there an intention to acquire any buildings?

- The properties located east of the bridge will experience the most impacts from the project and the County does not expect to purchase buildings right now. Since several buildings are constructed right up to the bridge, working with property owners to minimize impacts will be important for this project.

With the shift of poverty in the region and more vulnerable populations being pushed away from the City center, do you think that in ten years Old Town will be the way it is now? Will social services move to the east side of town?

- A participant noted that they have had to expand their services to the east side of town but people living in East Portland continue to access their services downtown.
- The bridge improvements will take on an approach that is human centered to ensure minimal disruptions to existing services and service provider operations. Staging will help support this approach.

How long will bridge construction take for each option?

- That level of detail is not known right now but determining full bridge closure is on the horizon. There are cost/benefits to a full closure and traffic modeling has begun to analyze impacts. At the end of day, it will be a community decision on whether to close the bridge entirely while construction is happening. Future conversations with the community will ensure a decision is made based on the public's appetite for full closure. Maintaining temporary access with a movable bridge will be expensive. (One participant noted that bike/ped detours can be extensive and that a temporary movable bik/ped bridge might be worth considering).

Is the project timeline realistic?

- Yes, but there is a wealth of knowledge on this team and though the timeline seems aggressive, it is very achievable.

Can public transportation be prioritized during construction?

- Further conversation is needed on this but prioritization would include bus among the modes of transportation.

Have you looked at other bridge models in places with natural disaster threats and how they approved improvements to spaces under the bridge?

- Not yet but an urban design consultant has been brought onto the project team to help guide discussion on the use of space. This consultant will provide "outside of the box" thinking on best ways to activate space.

Upcoming Outreach Activities and Next Steps

Mike Pullen, Multnomah County public affairs, referred everyone to a postcard on their table. He encouraged participants to attend the upcoming open houses on September 13th and 25th. He restated that feedback received is critical to inform the scope of the environmental review phase. He also stated that if folks are unable to attend in person, they have the option to visit the project online open house at www.burnsidebridge.org and provide feedback.

Mike explained that a Community Task Force (CTF) will be formed to provide input on the alternatives evaluation during the three-year environmental review. The CTF will be an advisory group that will provide guidance and recommendations at key decision points during the environmental review of the Earthquake Ready Burnside Bridge project. The project team is seeking a diverse group of volunteers (age, gender, race, income level) to serve on the CTF. Hearing from a diverse range of stakeholders that will reflect community values is important to Multnomah County. Applications to serve on the task force are being received online or by mail through August 17, 2018.

Closing Remarks

Megan Neill closed the meeting by thanking everyone for their time and participation. She hopes the presentation helped participants understand what the County is doing on the Earthquake Ready Burnside Bridge project and expressed a desire for this to be the start of future partnerships and relationships on this project.

EARTHQUAKE READY

BURNSIDE BRIDGE

BETTER – SAFER – CONNECTED

September 2018

The Burnside Bridge needs to be earthquake-safe

We depend on the Burnside Bridge as the main emergency route across the Willamette River. Connecting Washington County to Gresham, Metro designated Burnside Street and the bridge as an emergency lifeline route in 1996.

The Burnside Bridge has the least risk of an overpass collapsing on or falling beneath it during an earthquake. In the event of a major disaster, we all will rely on this east-west connection to aid emergency vehicles and disaster recovery efforts, including reuniting our families and spurring the regional economic recovery.

There is a problem with this scenario, however – the Burnside Bridge itself. Constructed almost a century ago before earthquake-resilient design was well understood, the Burnside Bridge will not survive a large earthquake. This makes the bridge the weak link in the regional lifeline route. The Northwest experiences large earthquakes at regular intervals and experts say we are overdue for a big one. If an earthquake strikes there will be no way to cross the river in downtown Portland. An earthquake-safe Burnside Bridge is our region's best option for a seismically resilient Willamette River crossing.

Visit burnsidebridge.org to view a simulation created by engineers depicting how the Burnside Bridge is expected to respond in a large earthquake.

AN EARTHQUAKE-SAFE RIVER CROSSING

This is why Multnomah County is taking the lead on making the Burnside Bridge earthquake ready. The draft Feasibility Study has extensively screened over 100 bridge replacement and rehabilitation options. Four options remain as the most promising to study in the upcoming environmental review.

MAINTAINING THE BURNSIDE BRIDGE TODAY

Multnomah County is conducting maintenance through 2019 to keep the Burnside Bridge operating and safe until a long term seismic solution is identified. This maintenance includes surface, structural, mechanical and electrical work that will occasionally affect bridge and river traffic. More information can be found at **burnsidebridge.org**.

The information presented here, and the public and agency input received, may be adopted or incorporated by reference into a future environmental review process to meet the requirements of the National Environmental Policy Act.

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

BETTER – SAFER – CONNECTED

How are the options being narrowed?

Over 100 Willamette River crossing options were considered in an extensive screening process.

A short list consisting of Enhanced Seismic Retrofit and full Bridge Replacement options is recommended for additional study. We want to hear your feedback on:

- Project purpose and need
- Scope of the environmental study
- Screening process results
- Draft Feasibility Study

Provide your thoughts to help shape the next phase of the Earthquake Ready Burnside Bridge project.

KEY:

- Not recommended. Did not pass evaluation screening.
- Recommended for further study. Passed evaluation screening.

SCREENING STEPS

1 Each option was screened against the core requirements of seismic resiliency, emergency response, and compatibility with major infrastructure.

2 Each remaining option was evaluated on how well it functioned immediately after an earthquake in addition to everyday use.

3 Each remaining option was further evaluated for its performance in six key categories:

OPTION GROUPS

No Build
Maintain existing bridge as-is.
These options are not seismically resilient or cannot support emergency response.

Seismic Retrofit
Upgrade the existing bridge.
A full seismic retrofit of the bridge is not feasible due to significant impacts to I-5 during construction.

Enhanced Seismic Retrofit
Retrofit most of the existing bridge, but replace the spans over I-5 and the railroad.

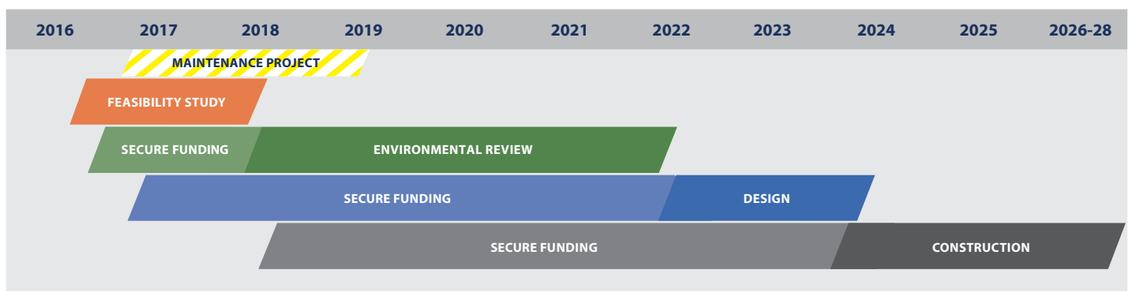
Replacement
Build a new crossing such as a high fixed bridge, low movable bridge, twin bridges or a tunnel.

Enhance Another Bridge
Retrofit or replace a different bridge across the Willamette River.
Other bridges do not provide a rapid and reliable connection to the Burnside lifeline route after an earthquake.

- **Seismic Resiliency** — Support reliable and rapid emergency response after an earthquake.
- **Non-Motorized Transportation** — Support access and safety for bicyclists, pedestrians and people with disabilities.
- **Connectivity** — Support street system integration and function for all modes.
- **Equity** — Minimize adverse impacts to historically marginalized communities and promote transportation equity.
- **Built Environment** — Promote land use compatibility and minimize impacts to parks and historic resources.
- **Financial Stewardship** — Ensure public funds are invested wisely.

PROJECT TIMELINE

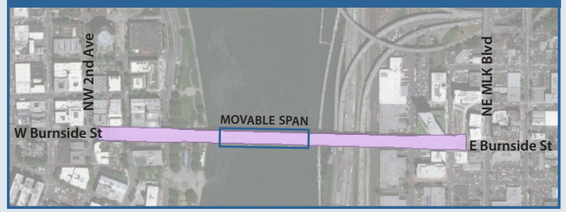
The project is moving from the Feasibility Study phase to the Environmental Review phase which will include preparing an Environmental Impact Statement (EIS). Your input at this time is vital in helping determine which options, topics and types of impacts will be studied in the EIS. Later in this phase we will ask for input on selecting a preferred option to advance into Design and then into Construction.



4 REMAINING OPTIONS

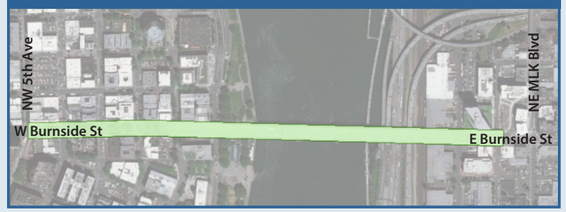
Four options have risen to the top through the screening process. We will be asking for your feedback before choosing the final range of options for further study in the environmental phase.

ENHANCED SEISMIC RETROFIT



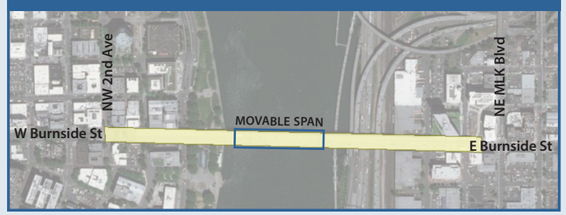
An upgrade of the existing bridge to meet current seismic standards. To reduce the construction impacts on the I-5 corridor and railroad, part of the bridge will be replaced.

REPLACEMENT: Fixed Bridge



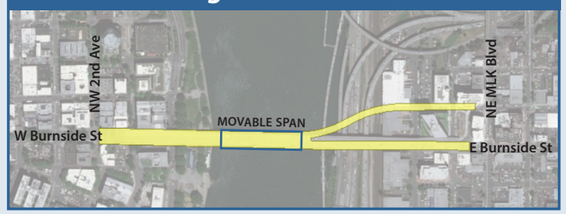
A new fixed bridge with a maximum clearance of 97 feet, at about the same location as the current bridge. It doesn't open, but is tall enough to allow ships to pass without halting traffic. The west landing touches down about 3 blocks further west than the current bridge, near NW 5th Avenue.

REPLACEMENT: Movable Bridge



A new movable bridge at about the same height and location as the current bridge.

REPLACEMENT: Movable Bridge – NE Couch Connection



A new movable bridge at about the same height as the current bridge. The east landing splits to connect to NE Couch Street. Westbound traffic uses NE Couch Street. Eastbound traffic uses E Burnside Street.

EARTHQUAKE READY BURNSIDE BRIDGE

Multnomah County
Communications Office - M539
501 SE Hawthorne Blvd., 6th Floor
Portland, OR 97214

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

Share your thoughts

Online survey Aug. 31 - Sept. 30.
BurnsideBridge.org

For information about this project in other languages, please call 503-209-4111 or email burnsidebridge@multco.us.

Para obtener información sobre este proyecto en español, ruso u otros idomas, llame al 503-209-4111 o envíe un correo electronico a burnsidebridge@multco.us

Для получения информации об этом проекте на испанском, русском или других языках, свяжитесь с нами по телефону 503-209-4111 или по электронной почте: burnsidebridge@multco.us.

EARTHQUAKE READY BURNSIDE BRIDGE

BETTER – SAFER – CONNECTED

Portland's aging downtown bridges are not expected to withstand a major earthquake.

Located in the heart of Portland, the Burnside Bridge is a regionally established emergency route across the Willamette River. Multnomah County is taking the lead on making the Burnside Bridge earthquake ready.

Multnomah County

Make your voice heard!

During the September public comment period, you can attend one of two open houses and visit an online open house. Your feedback is needed on the work that has taken place to date. Share your thoughts about the importance of a resilient Burnside Bridge.

Open Houses

WEST
Thur. Sept. 13, 5-7 p.m.
Mercy Corps
43 SW Naito Parkway

EAST
Tue. Sept. 25, 5-7 p.m.
Fair-haired Dumbbell
11 NE Martin Luther King Jr. Blvd.

Online Open House

Can't join us in person? **Go to BurnsideBridge.org from Aug. 31 to Sept. 30.**

Sign up for updates

Sign up for email updates at BurnsideBridge.org.
Your participation and input are important to this process.

BurnsideBridge.org
@MultCoBridges, #ReadyBurnside

Media Coverage

Burnside Bridge Seismic Options Discussed
Daily Journal of Commerce, 4/27/18
http://djcoregon.com/news/2018/04/27/seismic-options-for-burnside-bridge-narrowing/

Multnomah County is Getting Closer to Preparing the Burnside Bridge for an Earthquake
Portland Mercury, 4/17/18
https://www.portlandmercury.com/blogtown/2018/04/17/19820413/multnomah-county-is-getting-closer-to-preparing-the-burnside-bridge-for-an-earthquake?cb=5d05953d96af2b033c6728a722d88cc9

County Explores Earthquake Reinforcement Options for Burnside Bridge
KATU, 4/16/18
https://katu.com/news/local/county-explores-earthquake-reinforcement-options-for-burnside-bridge

New Earthquake Proof Bridge Design?
KXL News, 9/21/17
https://www.kxl.com/new-earthquake-proof-bridge-deisgn/

County's Burnside Project Hopes to Keep Old Bridge Standing After the Big One
Portland Tribune, 7/14/17
http://portlandtribune.com/pt/9-news/366252-247753-countys-burnside-project-hopes-to-keep-old-bridge-standing-after-the-big-one

Simulation Show Major Earthquake Destroying Burnside Bridge
KATU, 7/14/17
https://katu.com/news/local/simulation-shows-major-earthquake-destroying-burnside-bridge

Simulation Shows Burnside Bridge Crumble in Earthquake
KOIN, 7/14/17
https://www.koin.com/news/simulation-shows-burnside-bridge-crumble-in-earthquake/870123658

Planning Underway to Ensure Burnside Bridge Survives Major Earthquake
KATU, 4/18/17
http://katu.com/news/local/planning-underway-to-ensure-burnside-bridge-survives-major-earthquake

In the Zone: Cascadia, Your Government and You (opinion)
Oregonian, 3/5/17
http://www.oregonlive.com/opinion/index.ssf/2017/03/in_the_zone_cascadia_your_gove.html

Patchwork: Fixing the Burnside Bridge's crumbling underbelly
Portland Business Tribune, 1/12/17
http://pamplinmedia.com/but/239-news/383858-272390-patchwork-fixing-the-burnside-bridges-crumbling-underbelly

Multnomah County Takes First Step in Burnside Bridge Retrofit or Replacement
OregonLive, 11/5/15
http://www.oregonlive.com/multnomahcounty/2015/11/multnomah_county_takes_first_s.html

Multnomah County's 20-year Bridge Plan Emphasizes Earthquake Endurance
OregonLive, 2/16/15
http://www.oregonlive.com/portland/index.ssf/2015/02/multnomah_countys_20-year_brid.html

September Engagement Summary

Project:	Earthquake Ready Burnside Bridge
Date:	Wednesday, November 14, 2018
To:	Multnomah County, Megan Neill and Mike Pullen
From:	HDR, Heather Catron and Cassie Davis

Overview

In September 2018, Multnomah County hosted two in-person open houses and one online open house for the Earthquake Ready Burnside Bridge Project to gather input from the public on the results of the Feasibility Study and kickoff the Environmental Review Phase with the public. The two in-person open houses were held about two weeks apart – one near the west approach of the bridge, and the other near the east approach to attract a broader range of stakeholders. The online open house launched at the beginning of September and lasted through the month, a total of four weeks.

Meeting participants review and discuss crossing options displayed on an interactive GIS map.

The in-person open houses and online open house were intended to be similar in content, offering information and soliciting feedback about:

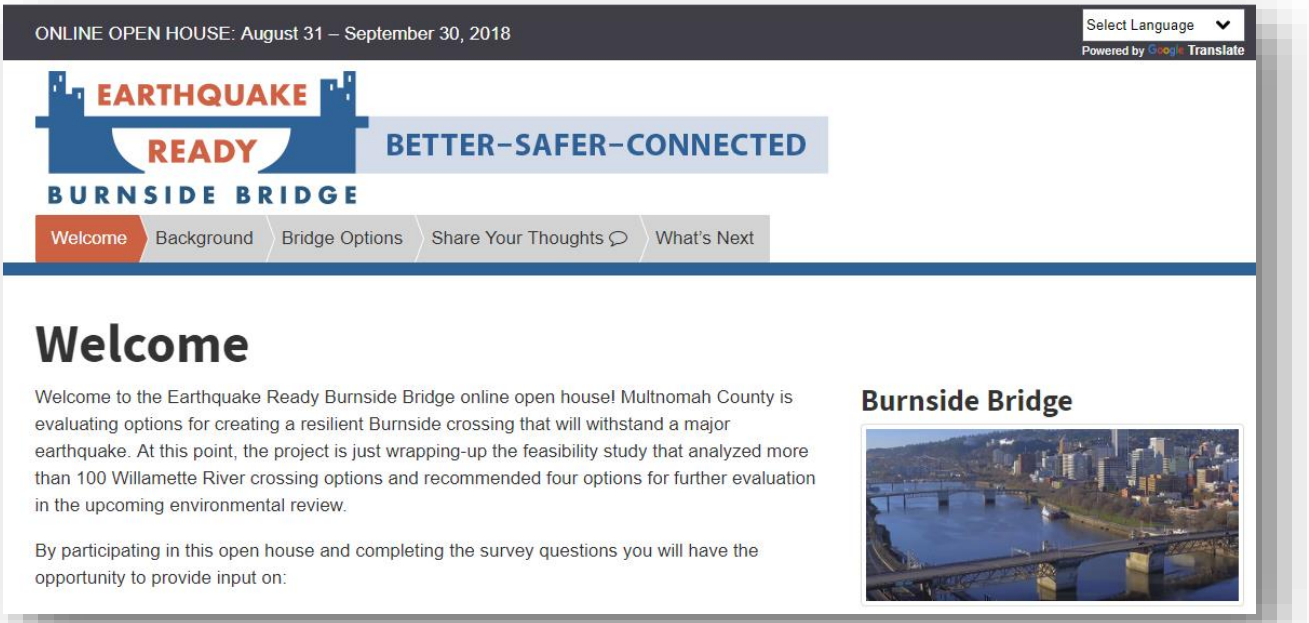
- Project background and timeline
- Purpose and Need
- Feasibility Study process and findings
- Range of options recommended for further Environmental Review
- Topics that will be studied in the Environmental Review phase

As needed, online graphics and materials were adapted or new graphics developed to accommodate or optimize the in-person engagement.

Online Open House

The online open house was developed to be an easy to use platform where people could learn about the project and provide input at their convenience, whether from a home or work desktop computer or mobile device. The intent for this online engagement tool was to create easier access to the project and opportunity for involvement.

Features and pages of the online open house included:



A project online open house attracted over 1,700 participants.

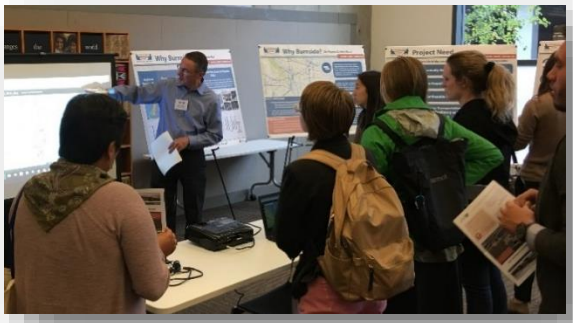
- **Welcome:** Provides an introduction to the project and explains the format of the online open house and how the user can provide feedback while reviewing project information.
- **Background:** Explores the purpose of the project and why it's needed, including an opportunity to review the project's Draft Purpose and Need statement. This page explains the Feasibility Study process, how the project team screened and evaluated options and allows people to review the Draft Feasibility Study Report and findings.
- **Bridge Options:** Shows each of the four recommended build options that came out of the Feasibility Study process and allows the user to get more details about how the options scored and why they were selected.
- **Share Your Thoughts:** Offers the opportunity to take a project survey where participants can comment on the Draft Purpose and Need statement, Draft Feasibility Study Report, the recommended range of options, environmental review topics and any additional comments they might have. People also had the opportunity to share demographic information with the project team.
- **What's Next:** Explains the next steps in the process, including the upcoming Environmental Review Phase and project timeline.

ANALYTICS

- 1,747 people visited the online open house.
- News media (26%) was cited as the number one way people heard about the project, followed by Facebook (18%) and then the newsletter (17%) received by mail.
- About 56% of those who visited the online open house were directed to it from Facebook.
- About 66% of people accessed the online open house with their mobile phone, followed by 28.5% on desktop computers.
- About 62% of visitors were located in Portland, with small percentages from Beaverton, San Francisco and Seattle; about 25% of visitors were from other various locations.
- After the Welcome page, the Share Your Thoughts page was the most visited.

In-Person Open Houses

The project team hosted two in-person open houses at the following locations and dates:



Multnomah County Community Affairs Officer, Mike Pullen shares the importance of having a resilient Burnside Bridge with meeting participants.

Open House #1

Location: *Mercy Corps (43 SW Naito Pkwy, Portland, OR)*
Date: *Thursday, September 13, 2018 from 5 p.m. – 7 p.m.*

With a direct view looking west on the Burnside Bridge, the Fair-Haired Dumbbell building allowed participants to see and think about the Bridge more literally.

Open House #2

Location: *Fair-Haired Dumbbell (11 NE Martin Luther King Jr Blvd, Portland, OR)*
Date: *Tuesday, September 25, 2018 from 5 p.m. – 7 p.m.*

There were 30 attendees at Open House #1 and 26 attendees at Open House #2. Each event was formatted the same way, with identical display stations and materials. Both events included each of the following display stations:

- **Welcoming Table:** The first station where guests are greeted and asked to sign-in, then briefed on the available stations, materials and opportunities to comment.
- **Why This Project:** Display boards showing why this project is needed, including a digital map showing regional lifeline routes, bridge collapse potentials and proximity to resources necessary in the event of an earthquake. This station also displayed the project's Purpose and Need Statement, with an opportunity to comment.
- **Where Are We Now:** Display boards showing the timeline of the project and key milestones, along with the four recommended options for further study and how they scored against criteria.
- **How Did We Get Here:** Display board showing the screening process for all of the options. Information about all options considered were also available, in addition to copies of the Draft Feasibility Study Report. An online GIS map was also displayed, showing locations and configurations of the top scoring 26 options and potential impacts to the surrounding area.
- **What's Next:** An aerial map of the bridge for the public to add ideas, questions or general comments. A display board outlining the next phase of the project – the Environmental Review or NEPA (National Environmental Policy Act) phase and its study topics. Another board displayed the timeline and elements of the NEPA process.
- **Earthquake Animation Video:** An animated simulation video of what would happen to the Burnside Bridge in the event of a Cascadia Subduction Zone Earthquake.
- **Information Table:** Information about emergency preparedness and regional resiliency planning from project partners, project fact sheets and project surveys. Staff from Multnomah County Emergency Management staffed this table to provide emergency preparedness information.

Public Feedback

In total the project received 166 submitted comments during the September engagement period. 157 people completed the project survey, 150 of which took the survey online, and 11 that sent a general comment to the project email. Of those who offered survey feedback, most said that they use the bridge occasionally or weekly, and most said they drive a personal vehicle alone when they use the bridge. The majority of those who took the survey said they heard about the project from news media.

WHAT WE HEARD

Overall, participants expressed broad support for the project and its efforts. Many mentioned that they appreciated the consideration of many alternatives and the outreach that's been done on the project so far. Many also expressed urgency due to the importance of the project, hoping that decisions would be made and a design would move to construction quickly. Most respondents said that they "agree" or "strongly agree" with the range of options recommended

for further study during NEPA; many remarking that the options are “reasonable.” That said, several people said that they would like to know more details about the cost and schedule of each of the four recommended options.

Some participants shared support for particular options over others. In general, comments showed more support for a movable bridge than a fixed bridge, though responses included support for both. In addition, more responses showed support for a bridge replacement as opposed to a retrofit. Some asked about the feasibility of the tunnel option, which was previously evaluated and eliminated during the Feasibility Study.

Many people provided feedback about particular features they’d like to see on the Burnside Bridge. Several people suggested protected bike lanes, pedestrian paths and transit facilities such as a bus only lane. Others said that the aesthetics of the bridge would be important for placemaking and tourism, with the opportunity to be a “Portland icon.” Some hoped to keep as much of the original bridge as possible to sustain its historic character.

The full list of comments received can be found in Attachment A.

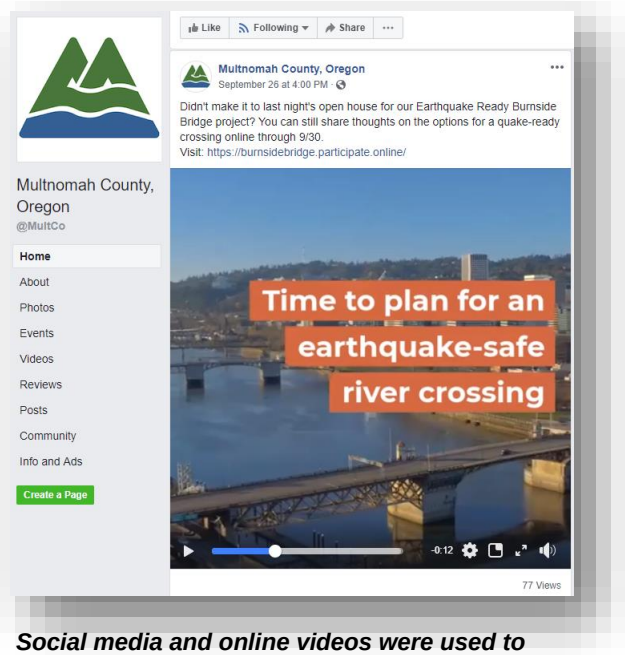
SURVEY DEMOGRAPHICS

- **Race/Ethnicity:** 75% of participants that identified their race/ethnicity identified as White or Caucasian. About 3% identified as Hispanic or Latino, and another 3% identified as Asian or Pacific Islander. Smaller percentages identified as Black or African American, American Indian or Alaska Native, Slavic or two or more races. 15% said they’d “rather not say.”
- **Gender:** About 32% of participants that identified their gender identified as female, while 45% identified as male, and the remaining gave another response, or no response at all.
- **Age:** Of participants that identified their age, the age group with the largest amount of participants was 35-44 at 28.6%. The second-largest age group was 25-35 with 27.2%. Ages 45-54 accounted for 18.4% of participants and ages 55-64 accounted for 8.8%.
- **Income:** Of participants that identified their income, more than 33% reported earning $30,000 - $80,000 in household income. About 30% said they earned $80,000 - $120,000 and 19% reported making more than $120,000 per year.

Publicity

- **Videos:** Two short videos were created as a tool to engage the public and encourage people to learn about the project at an open house or learn more online. They were shared on the project website and through social media.
- **Social Media:** The project team utilized paid and unpaid posts on Facebook, Instagram and Twitter, reaching 54,000 individuals. This is approximately 14 percent of the total population of the targeted area. Nearly a quarter, about 23 percent, of survey respondents self-identified social media as how they learned about the project.

- **Mailers:** The project team distributed 25,663 mailers describing the project and advertising the open houses and online open house. These mailers were distributed to residences and businesses around the project area, as well as to those stakeholders who attended project briefings. **E-newsletters:** Multnomah County published two email newsletters about the in-person open houses and the online open house.
- **News Releases:** Multnomah County distributed two news releases about the in-person open houses and the online open house.
- **News Coverage:** Local news media ran a total of 7 articles or broadcast stories about the project and engagement opportunities.
- **Banner on the Bridge:** Throughout the month of September, a banner was hung above the Burnside Bridge, reading “Help Us Decide the Future of the Burnside Bridge – BurnsideBridge.org” alongside the project logo and county logo.



Social media and online videos were used to spread awareness and promote the open houses.

Attachment A. Public Comments

EQRB September Engagement - Survey Comments

Source	Response ID	Do you have any comments about the draft purpose and need statement?	Please indicate your level of agreement with the following statement: The four recommended options are a reasonable range of options to study in the next phase	Please describe why you feel this way and if there are any other options that you think should be considered.	The positive and negative effects of the project on the following topics will be studied in the next phase: Built and Cultural Environment Businesses and employment Economics Historic and archaeological preservation Housing Land use Parks and recr	Do you have any comments to share about the draft Feasibility Study Report?	Do you have any additional comments you'd like to share?
Online	3		Agree	The range of impacts and costs are being well documented. I would like to see a 'staged' emergency floating bridge in addition to and available until a stable bridge is available. Having the military floating bridge staged at JBLM (Seattle) is not an o			Bridges should be the State of Oregon not county controlled, Multnomah County should be out of the Bridge business.
Online	4	Sadly, the project is another piecemeal look at Portland's transportation system rather than a comprehensive review of all the downtown area transportation network. Why not evaluate an elimination of the I-5 portion that hugs the East Bank of the Willame	Neutral - neither agree or disagree	Why not think bigger in scope....tunnel beneath the river for mass transit? Get Max off the bridges and downtown streets?	Why do we need to plan for ships to go upriver? Years ago the Marquam Bridge was built insanely high to accommodate large ships, where are those ships today? The basic premise of having tall ships upriver of the Burnside bridge needs to be revisited.	Why not site a completely new bridge downriver to meet the emergency needs associated with the Burnside Bridge?	Including the Burnside Bridge in the emergency lifeline route is based upon 1996 assumptions. The city has changed since then, we have new bridges, Sellwood and Tillikum now and a whole lot more people. A completely new bridge may make more sense today a
Online	5		Strongly agree			if possible from a financial and logistical standpoint, the Fixed Bridge replacement without a movable span would significantly help reduce congestion by minimizing the time needed for bridge lifts.	
Online	6	There was no obvious mention of the cost of the various options studied. If all four options solve the issue of earthquake preparedness then it would seem sensible to go with the more affordable options.	Agree	Clear to read graphics and diagrams. It's logical to either repair or replace a worn structure.	How the cost are covered and the impact on home prices.		
Online	7	It's vital to make it Seismically secure.	Strongly agree	An emergency plan to use barges or something to shuttle people across the river in case of emergency. It's cheap and better than nothing.			
Online	8		Strongly agree				I do NOT like the fixed bridge. It will hurt an already economically challenged neighborhood at the west landing
Online	9		Agree	I guess one question that comes to mind for me is, how expensive would building a new bridge be (unrelated to the burnside bridge) versus fixing/upgrading burnside bridge. I know software development is not engineering physical systems, but			
Online	10	I'd love to see Portland get going on this before 2024 with construction expected to be complete in 2026-2028. That's a long time away. We need to address this asap.	Strongly agree	All of the options seem reasonable and along the lines of what I'd expect.	Looks like you've got them covered.	Granted we all need to know the business, cultural, social, environmental, transportation and financial impacts, but replacing the Burnside Bridge with a fixed bridge sounds like the best option to me as then we wouldn't have to deal with the bridge delay	Thanks for soliciting feedback.
Online	11		Agree	I believe that the "fixed bridge" and the "movable bride with NE Couche st. connection" are the two best options. However a combination of the two concepts would be better for traffic purposes.	Traffic alleviation		
Online	12	As a parent of a child who goes to school on the eastside (while I work on the west) a earthquake safe crossing is important to me for emergency access and for me to cross the river after an event.	Agree				
Online	13		Strongly agree	It leaves the option to preserve the bridge which many Portlanders would feel strongly about. This bridge makes the most sense. What about the new Tilikum?	Economincs, aesthetics, traffic		
Online	14		Agree	What about a tunnel option. I understand the Tri-Met is beginning to explore a tunnel, and perhaps a joint solution could offer monetary savings.			Seems like a good idea to have a bridge still standing (or some other option such as a tunnel) that will allow movement across Willamette after earthquake.

EQRB September Engagement - Survey Comments

Source	Response ID	Do you have any comments about the draft purpose and need statement?	Please indicate your level of agreement with the following statement: The four recommended options are a reasonable range of options to study in the next phase	Please describe why you feel this way and if there are any other options that you think should be considered.	The positive and negative effects of the project on the following topics will be studied in the next phase: Built and Cultural Environment Businesses and employment Economics Historic and archaeological preservation Housing Land use Parks and recr	Do you have any comments to share about the draft Feasibility Study Report?	Do you have any additional comments you'd like to share?
Online	15	I support it.	Agree	They present a range of options and presumably costs. Excited to see how each option supports different types of travelers: walkers, bicyclists, bus riders, cars, etc.	Looks good!	No.	
Online	16		Strongly agree				
Online	17		Strongly agree	Process feels thorough and makes sense for next steps	n/a	n/a	
Online	18		Strongly agree				Don't make the bridge too high because then it will be harder to walk over.
Online	19		Disagree	Tunnel option should be looked at as part of a larger regional effort to improve transit speed through downtown.			I would like one of the options to include a lower level bike/ped path like the Steel bridge. This could tie into the riverfront trails on both sides.
Online	20		Strongly agree				
Online	21		Strongly agree		Bridge design and aesthetics. A new bridge could be an icon of the city. Don't go cheap.		Bridge design and aesthetics. A new bridge could be an icon of the city. Don't go cheap. Also fixing the current bridge would be a waste of money
Online	22		Agree	The four seem reasonable and straight-forward; the retrofit option doesn't make much sense to me from a cost an replacement horizon point of view. The split bent idea on the east bridgehead is my favorite, but I also prefer the fixed bridge option.			Thanks for moving this project forward.
Online	23		Strongly agree				
Online	24		Strongly agree		Construction length and complexityâ€”we need this fast!		Nice work! Great, informative website!
Online	25		Agree	looking at options is best than getting put into one direction and then have to restart the process.	views - historic quality of old town and preservation of adjacent historic and older structures.		Enhanced Retrofit is my favorite.
Online	26		Strongly agree		I would love for the new bridge to have BAT lanes for buses and separated bike lanes! I'm excited for this project!		
Online	27	Dig it	Agree	Needs a "SE Wishbone" that's bike/ped only to connect to Ankeny bikeway & get bikes off Couch. This would decrease congestion for motor vehicles.	Seismic resiliency Motor vehicles		
Online	28	Needs large, dedicated pedestrians path, and large separated & protected bike path.	Agree	Needs large, dedicated pedestrians path, and large separated & protected bike path.		I think it should be a new bridge with a new approach. The city is changing... we shouldn't design something to look like the old version because of purely aesthetics reasons. Bridges can be pretty and functional...	
Online	29		Strongly agree				
Online	30		Strongly agree	Four options is plenty to consider. I am sure this already has cost the taxpayer Millions of dollars. Stay with the choices and choose from them.	Both items in Financial. Under Transportation -- Freight, Motor Vehicles and River Navigation. The new transit bridge takes care of Pedestrians, bicycles, and transit, though it is a damper to River navigation. Under Natural and Physical should be Eart	Not at this time, just watch the spending and use common sense.	Not at this time.
Online	31		Agree				
Online	32		Strongly agree		I'm really hoping we agree that at least one earthquake safe bridge is essential for our city		
Online	33			Have you considered a ferry across I5 to down town?			
Online	34		Strongly agree		Any option must include dedicated transit lanes as well as physically protected bicycle and pedestrian facilities.		

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Online	35		Agree	A taller or longer bridge would be a car-centric design and should not be considered in light of our climate action plan, which aims for roughly half of the vehicle traffic on the bridge to be bicycles by 2030 (25% of all trips by bike and less than 25% d	We need a wide (at least 10ft each way) protected bikeway and generous sidewalks which make it safe, convenient, and pleasant for people crossing the bridge without a car. Car noise and emissions need to be reduced. Car speeds and lane widths should be		Car-centric bridge designs burden our region with the traffic caused by induced demand. We need to build for the traffic we want to see, not try to accommodate everyone driving a car alone at the same time twice per day. Give people a safe and convenien
Online	36		Agree	They provide a nice range of options.		Based on the info provided, I support building a moveable bridge in the current alignment. Please do not select an option that requires displacing buildings or adding elevated viaducts to either bridgehead. I also do not support the split design given the	Thank you!
Online	37	do not demolish the burnside bridge	Disagree	it's iconic, and once history is lost it's lost forever	us citizens and taxpayers can't afford all the decisions made in the last 10 yrs, so you need to spread out the large projects	no demo	
Online	38		Agree				
Online	39		Agree				Thanks for doing this important work.
Online	40		Agree				
Online	41		Agree	A tunnel option should be considered.			
Online	42		Neutral - neither agree or disagree		Length of construction and traffic conditions		
Online	43	No.	Strongly agree	The approaches to the bridge itself cannot be any less important than the bridge. This needs to be strongly communicated.			Why are you collecting the demographic data, such as age, income, race, gender identity, etc.?
Online	44		Agree	Need to keep the list of options small, reasonable, easy to study and in a reasonable timeframe.	Views and aesthetics are important, as are impacts to parks and the river.		That Mike Pullen is great!
Online	45	I would like to see the replacement fixed bridge option built. This would make things safer for folks that bike and walk across this structure. The vision of the city on the west side of this current bridge presents is always trashed out with folks all	Agree	You have presented several options that make sense.			
Online	46		Agree				
Online	47		Strongly agree		When designing a bridge for 50-100 years and to increase seismic resilience for the whole community, temporary issues and impacts on buildings that will fail in a seismic event anyway should not be considered. Infrastructure supports all, it should be des		
Online	48	I want to make sure that the repairs that are made to the Burnside Bridge are not a bandaid fix. Improving road way access for the area, ensuring stability, and quality construction should be number 1.	Strongly disagree	How the options are portrayed seems to be a band aid fix.	Options to replacing the bridge should also be noted in the possible scope of work.	The options look more like they are addressing logisitics in traffic flow rather than the structural integrity of the bridge. How do we know that the footings for the bridge in the river will be able to sustain. The public needs to be aware of the limit	There is alot of great work already started, I hope that the money spent and planned on spending will be put to good use. It would be very disappointing to find out that alot of money was put in for little return.
Online	49	People drive too fast on this bridge. People biking and walking need more space and better protection. People driving alone are clogging up the bridge and preventing buses from efficiently moving people. This bridge needs a bus-only lane	Disagree	The fixed bridge option creates to big of a disturbance on the west side. The added height will negativly impact the adjacent buildings and will disrupt the City's grid. This creates an unacceptable barrier, especially for people walking and biking. The C	placemaking		
Online	50		Strongly agree	Options seem to cover the range of realistic choices.			
Online	51		Strongly agree				Great materials!

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Online	52	You address the issues with rockfall and landslide at the Ross Island Bridge, but do not address concerns about rockfall and landslide concerns on Burnside past 23rd, this area seems to close every winter due to slides and sink holes, is this area being c	Agree	I think you could cut back and only do NEPA on two, the EJ impacts of the new bridge without a lift span would be significant in this area, as would the Couch option. I know not everyone will agree with that statement, which is why you probably need to s			If I had a vote, I would vote to replace with a low movable bridge - not the couch option. If replacement fits in approximately the same cost as retrofit, this should be the preferred option, though you need to be prepared for public backlash due to work
Online	53	In that Portland is a city of bridges and it is doubtful that the unique bridge lift houses and other characteristics of the 1926 bridge world be replicated, my personal preference is to retrofit the existing bridge.	Agree	From TriMet to neighborhoods and historical buildings, it seems these days there is a movement to replace everything that is older and unique within our city.	Historical significance	The NE Couch connection looks too much like a freeway bridge.	Transit riders and bicyclists need to help pay for the project.
Online	54		Strongly agree				
Online	55		Disagree	There's no wider bridge option, and the wishbone option is ridiculous.	Ease of access in a major seismic emergency. Placement of BEECN or radio towers on the bridge. Or water purification stations.		
Online	56		Strongly agree	The bridge is old and outdated. It needs to be replaced to meet the coming disaster.	Having emergency supplies strategically placed along the bridge for use during and after the earthquake.	Replacement is best.	All the bridges need to be addressed.
Online	57		Strongly agree				I support rebuilding the bridge, but I hope the pretty control towers can be saved.
Online	58	I agree with the purpose and need for this bridge.	Agree	I understand the desire to minimize the adverse impacts to historically marginalized communities, because I live in a "historic" building, too. After studying earthquakes, I think the adverse impacts of a new bridge is a moot point, when it comes to the i	It's important to understand earthquakes operate on different timescale than people. We must think in same timescale, when it comes to how we deal with earthquakes. Don't know how long bridge built to last, but we will probably go through many in the span	None.	Portland must build this bridge, or the city will be uninhabitable for 50 years.
Online	59		Disagree	This bridge should could be a bike / pedestrian bridge with space for bus and essential emergency services bridge.			Thanks for taking a thoughtful approach. Please prioritize bikes, peds, and transit.
Online	60		Agree	Seems complete, but make sure last option has no lift span	Separate bike lane and light rail too		
Online	61	New bridge with new approach is the way to go.	Strongly agree	This is a good study of options and the cost,		New bridge with new approach which will serve for next 100 years or more is the way to go. Do not take short cuts, plan for the future needs.	This bridge will serve Portland and Oregon for next 100 years and more, stay focused on the future needs and build it, regardless of the costs.
Online	62		Agree				
Online	63	Could a tunnel be another option? Seems it would solve several downsides of taller bridge. Tunnels seem to work in other cities, such as DC, Boston, New York.	Neutral - neither agree or disagree	Yes. A tunnel option.			
Online	64	Have we considered debris from other bridges & things coming down river after an earthquake? The earthquake may not be your largest concern.	Agree	It needs to be done. You have given us 4 viable options for people to make their choice.			
Online	65		Strongly agree	I'm part of Grant Park NET Team and too many people are not preparing their families for such disaster, let alone prepping the bridge. With life line from east to west, it's a must.			
Online	66	Build all new bridge. Keep the old look and style. Just upgrade with parts that will last 200 years with minimum amount of maintance. NO buy pass bridge. Bridge work shoul;d be done 7 dats a week 12 hour shifts. Start the build and GET IT DONE!	Neutral - neither agree or disagree	theres always options that are thought of later. Bridge should be built to last 200 yrs. YES IT CAN BE DONE> Look at east coast bridge builders. No not go with Oregon building only.	do not turn this into another I-5 bridge fieasco. endless commities and spending of much moneys at tax payers expense.		
Online	67	None	Strongly agree				Good luck
Online	68		Agree				

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Online	69		Strongly agree				Low existing alignment! Thank you for moving this project forward and increasing resiliency.
Online	70		Agree	This seems appropriate - I cannot think of any other options that seem reasonable.			
Online	71				BES / COP concerns over a major bridge failure. Could destroy a 30" and 42" sewer force mains on the sea wall under the west side of the Bridge. A secondary concern is the electrical switch gear to the Ankeny Pump Station. If the bridge failure falls sout		
Online	72	The low wishbone and low existing alignment are highly favorable. The wishbone will likely be the most efficient in terms of traffic and could allow the street between the dumbbell and Yard to become a very nice public plaza that acts as a hub for the Eas	Strongly agree	The low wishbone and low existing alignment are highly favorable. The wishbone will likely be the most efficient in terms of traffic and could allow the street between the dumbbell and Yard to become a very nice public plaza that acts as a hub for the Eas	Traffic, Separation of bike/pedestrians/cars, access to the eastbank esplanade from BOTH sides of the bridge, access to the waterfront park from BOTH sides of the bridge		
Online	73		Agree				
Online	74		Strongly agree				Don't try to keep traffic on the bridge during the work which makes everything take longer. Shut it down, fix the bridge, open it. There are plenty other bridges close enough to handle it for the construction period, which would be much shorter.
Online	75		Agree				
Online	76		Strongly agree				
Online	77		Agree			To the best degree possible, I would strongly be in favor of maintaining the original aesthetic integrity of this iconic bridge, one of the cities most identifiable structures. The design is timeless.	
Online	78	The draw bridges are an important and iconic part of Portland's character. Let's keep them moving!	Agree	My only reservation is that I don't think we should be considering fixed bridges. The other three options seem fine.	The moveable bridges are a symbol of our city and a source of civic pride.	A fixed bridge would change the entire character of downtown, and not for the better, turning most of Old Town into an off-ramp.	
Online	79	Earthquake danger is much less in Portland area than SW Oregon. This is confirmed by ODOT. New U of O report corroborates with earlier reports, esp. USGS/OSU report 1661 f. Burnside Bridge may be 'designated' as major lifeline, but in reality all Portlan	Neutral - neither agree or disagree	Postpone reconstruction until 2030 and there will be stronger, and more construction efficient materials then. Agree that section over I-5 is critical and needs major improvement. However, section of bridge over waterway is easily upgraded, with improved	Broadway Bridge, Steel Bridge and Morrison Bridge are less risk-prone. Why can't these be designated as lifelines also? I.e. alternate emergency routes. Therefore less hysteria about Burnside Bridge.		
Online	80	Not really, it seems to have a good intent at the very least.	Agree	There is ample variety in the range of options presented.	The impact to bicyclists needs to be weighted appropriately given the stated purpose of this project. In the event of a CSZ quake Multnomah County should not be encouraging the use of SOV with one of only two bridges that will be most likely to survive. E	The replacement option with a movable span seems to be the best option based on all of the criteria presented.	
Online	81	It was well presented	Strongly agree	I feel this was thoroughly evaluated and the best options are now being presented.		I didn't see an option for us to vote on one of the four, but my first choice would be the Movable Bridge.	

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Online	82		Strongly agree	These seem like reasonable options. I would suggest adding dedicated bus lanes. Perhaps Trimet could use the Burnside Bridge instead of the Steel Bridge for buses since they say the Steel Bridge is inadequate. Could the county and Trimet combine resources	You could restore some wild shoreline on the east side below a higher bridge. You could also add a campground with showers/toilets and laundry below the bridge for the use of whoever wants to camp in the city.	As a bus driver, I much prefer the higher bridge option. People are really wasting a lot of time sitting in traffic.	I think all government agencies should include restoration of natural habitat, universal accessibility, transit, walking and biking and inexpensive housing and even campgrounds in their plans. We can't just be car- and commerce- centric anymore. We're des
Online	83		Agree				
Online	84	Seems obvious that we need an earthquake-ready bridge	Agree	These seem reasonable		I like the options to build a new moveable bridge best. It seems like more work to retrofit, and the disruption caused by moving the onramp west for a fixed bridge seems excessive at best. (Moving the onramp multiple blocks would be really disruptive to	
Online	85		Agree		Also consider using the upgraded bridge as a critical utility corridor (especially water, electric, and communications).		Get it done!
Online	86		Agree			I favor replacement with a moveable span to keep the ascent manageable for bicyclists and pedestrians and minimize disruption to Old Town.	Any new or retrofitted bridge should be made suitable for streetcars to allow for future expansion of that network.
Online	87		Strongly agree	The four options have to focus on getting the most value for the least cost. I feel the four presentation reasonable range of options at a reasonable cost.			I would choose the fourth option: a Burnside Bridge with a modified approach on the East Side.
Online	88		Agree	Options/rationale seems reasonable			Replacing/retrofitting bridges should be a high priority and I strongly support this project.
Online	89		Strongly agree		I support making Burnside Bridge more accessible to people who bike or use public transit.		I support the construction of the "fixed bridge" option (#2), which would minimize disruptions to public transit.
Online	90		Agree				
Online	91		Neutral - neither agree or disagree	We ultimately need to replace/significantly fix all of our bridges with the exception of the Tilikum and Sellwood. Columbia River, Fremont, Marquam, Burnside, Steel, etc. We'll never have enough cash. So which ones? I know the Steel Br. isn't county,	Good list. However, related to the comments above, we need to be thinking about which bridges in the region will be most critical to our recovery after the big one. The Steel and Columbia River crossing would appear to be way more important for emergenc		
Online	92		Strongly agree				
Online	93	The new Couch st connection sounds like a brilliant idea. A total replacement would be preferred for the best longevity and sesimic protection.	Neutral - neither agree or disagree	Conclusion that retrofit not readable is sound becuase the bridge was built in the 1920s. Most bridges should last 100 years.	MAINTAIN CAR LANES! Don't steal car lanes. New bridge could be wider with buffered/protected bike Lanes.	The new Couch st connection sounds like a brilliant idea. A total replacement would be preferred for the best longevity and sesimic protection.	
Online	94	Why do you make a big deal out of the fact the Burnside Bridge is part of the route from Gresham to Washington County? Who would travel that route that distance??? Who travels more than a small segment of that route in any given trip? Isn't the Morrison B	Neutral - neither agree or disagree	Instead of pouring more money into that bridge, constructing temporary bridges, etc., why not just build a new, second bridge at Couch? You might have to condemn one building at the SE corner of Second and Couch to allow for an easier turn onto second, bu	Financial Construction costs Maintenance costs Transportation Motor vehicles		
Online	95		Agree	Something needs to be done to provide seismic resiliency and retrofit or replacement make the most sense. I don't think a 97 foot clearance is very desirable from an urban design and biking perspective however. There should be a happy median where bridge	Obviously construction impacts will be considerable. I hope the analysis considers modifications to other bridges to provide safer and more efficient crossing of the river for bikes, peds, and buses. A temporary bridge doesn't seem reasonable from a cost	I think a seismic retrofit is the most reasonable option and preserves a historic bridge in the city center. Again, I don't think a temporary bridge is reasonable cost adder due to proximity of existing bridges.	The project should not introduce any increases in grade or elevated roadway in downtown, especially in Old Town where the existing underpass at 1st ave is very sketchy.

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Online	96		Strongly agree	The existing bridge needs to be replaced, is a critical transport link in the city and would cause major issues if it collapsed. Not doing anything is not an option, as it may cost more money in the future. The existing bridge is also nearing the end of	The travel lanes are already well established, but pedestrians should have better protection.	Seems good.	
Online	97		Strongly disagree	It is unreasonable to consider a fixed bridge for this location. In order to allow river traffic to pass below a fixed bridge, it would have to be so high that the approaches would continue for blocks, utterly altering the streetscape and neighborhood ch	The Burnside Bridge contributes significantly to Portland's character as a river city. Drawbridges are an important part of our cultural identity, and of our appeal to visitors. Beyond being a sensible solution for the challenges at hand, preserving the		Thank you for inviting public comment, and for making it easy to contribute. This project is important, and the richer the discussion, the better the outcome will be!
Online	98		Agree		This town is so focused on "bikes and peds", think about people with disabilities and mobility issues please		This town is so focused on "bikes and peds", think about people with disabilities and mobility issues please
Online	99		Disagree	Based on what I have read, a "seismic retrofit" was excluded as an option due to impacts to I-5. I think this is not a good reason to exclude the option. This would be an excellent opportunity to shut down I-5, and rebuild it as a boulevard. I-205 can be			
Online	100	I'm very glad that Multnomah County has sent this pamphlet out to area households. Portlanders need reminders to be prepared for earthquakes. PBEM doesn't do preparedness mailings to households which I find ridiculous.	Strongly agree	I worked in college & university facilities management for over 40 years in Cuyahoga County, Ohio and Montgomery County, Maryland. I participated in any number of facilities master planning efforts and a significant deferred maintenance study. Exploring	List seems thorough to me.	Keep going. Good work! This is important. The recent I-5/84 ramp paving closures and various bridge projects (Broadway) show that Portlanders can manage the inconveniences of critical infrastructure projects.	Suggest to your counterparts at PBEM that they use mailings to reach households with important earthquake/emergency preparedness information. Many people moving into Portland are simply clueless about "the big one." Thank you for reaching out to the commu
Online	101		Agree				
Online	102		Agree	I think rebuilding the existing bridge or retrofitting the bridge are the two best options. The fixed bridge and split bridge options have too many negative impacts to the neighborhood or emergency vehicle access. A fixed bridge would destroy the little r			Thank you for making it easy to understand this process!
Online	103						
Online	104	Movable bridges, although much more structurally complex, make for much better pedestrian and bicycles crossings. This is because the bridge doesn't need to have as steep of a slope to get over it.	Disagree	I think we should do as much as possible to maintain the classic beauty of Portland. That means maintaining the current structure rather than replacing the bridge entirely.			
Online	105	I thought Tillicum Croasing was built to withstand an earthquake	Agree	Floating bridge?			
Online	106	no	Agree				how much do they all cost?
Online	107						Hi Mike, Is there any more cost information anywhere? Bridget Bayer
Online	108	I agree with the need for seismically safe route in Portland.	Strongly agree		Considering the condition of buildings at the west and east end on burnside (URM's) that may collapse and impede emergency traffic from passing.		
Online	109		Agree	I believe reinforcement or replacement of other bridges were considered but rejected. I am not clear the basis for rejecting those other alternatives.			
Online	110		Strongly agree				
Online	111	Seems to have taken all contingencies into account; interesting to read thinking on why BB would be the lifeline bridge	Strongly agree	I think the process to get to the 4 options is well-thought out			TOtal costs should be given - the costs to build/use a temporary bridge, for example
Online	112		Agree	I'm concerned with biking over such a steep bridge, should burnside be replaced with the fixed alternative.			

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Online	113		Disagree	Will a bridge be the most stable or feasible way to transport people in the event of a disaster, given the multiple subduction zones, including those fault lines running parallel to the Willamette? Also, given that areas closest to the banks will be flood	This is the time now to consider multiple methods of transport, as well as what to do with handling large influxes of people in the event of a mass exodus from one area of the city to other areas of Portland. Likely roads will not be intact, making bikes	Concerned that the city is focusing too heavily on a specific end solution, rather than continuing to explore additional reasonable options. The report still does not adequately address concerns based on anticipated seismic activity. This project will als	
Online	114		Agree				glad to hear this consideration of infrastructure reality is proceeding.
Online	115		Strongly agree				
Online	116		Neutral - neither agree or disagree				If you are going to move the west side you might as well make Burnside and couch the same on both sides. Also I didn't see for how long the bridge would be close with each option. The Burnside bridge closure could have a negative impact on the steel
Online	117		Agree	Maybe the Burnside Corridor isn't where the effort should be focused ..... maybe a completely new bridge downriver would be better, somewhere between the St Johns bridge and the Fremont Bridge?			Keep up the good work.... Raising the Burnside Bridge and consequently extending its landing farther west on Burnside is just dumb and creates more "issues" than it solves.
Online	118		Agree	Why are we considering an option that scored 74% when the others were at 82-92%?			I'm not sure why the scores of the 4 bridge options were so buried, that told me a lot more than the images and brief descriptions, i'm curious how many people even saw those ratings.
Online	119	The purpose and need statement focus on seismic resiliency but do not talk about other how changes in design may impact the bridge's use and value outside of its use after a CSZ event.	Disagree	As presented, the options do not seem to vary much beyond several variables.	The ability of the different options to provide improvements over the current sub-standard pedestrian and bike facilities should be made explicit.	The scores do not seem to highlight the differences and pros/cons of the different options enough. The costs are all the same and there is not much variation in the scores. More thought should be put into the outcomes and impacts of the different option	
Online	120		Strongly agree				
Online	121		Agree				
Online	122	No.	Agree				No, thank you.
Online	123	The animated simulation very clearly highlights the need to upgrade or replace the bridge!	Strongly agree	The groundwork already done on this process was summarized and distilled to a digestible amount of information to let me know that the options that have already been rejected don't need to be included. All four options have clearly-defined benefits and tr	The only comment I have about impacts are about pedestrian and bike accessibility. I don't currently use this bridge regularly but used to live in NE Portland and used it almost daily. When I do walk from downtown to the East Side, this is usually my brid	This was just enough information and the right level of participation for me to feel like I participated a little bit. I am more informed about the options and will be paying more attention to how this moves forward.	
Online	124		Strongly agree				
Online	125	I don't see where this is specifically presented. I can surmise what it is from the background information but it is not isolated and not part of the project library either. If not present also address traffic and maintenance and not just seismic.	Disagree	It seems for the last 15-yrs everyone wants to talk about tunnels when replacing bridges. It is not a reasonable option as presented since it does not discuss where the ends would be, it's seismic risk, and it's % cost over the other options.	Natural resource regulation: ESA, MSA, Clean Water Act (Section 404).	No	
Online	126	The need is overblown. Best to seismically improve non-remarkable, less-historical bridges like the Morrisson Bridge.	Neutral - neither agree or disagree		History, continuity, architectural beauty, uniqueness.	#1 is the only option that should be considered. Doing nothing but routine maintenance to the Burnside Bridge should also be considered.	What if you simply left things as they are and made the idea of conservation a central ethos?

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Online	127		Strongly disagree	The only reasonable choice is option one.			Perhaps the county and city should start look at overall, current livability, which is not good and declining quickly.
Online	128		Strongly agree				
Online	129		Strongly disagree				
Online	130	The retrofit is the ONLY reasonable choice of those you chose to present.	Strongly disagree	You completely neglected any other feasible options to maintain or retrofit the existing spans because the goal of this project was to raize the existing structure from the beginning.	Cultural		Really displeased at how this was framed.
Online	131		Neutral - neither agree or disagree	I do not think any option that removes this piece of history should be considered and extraordinary measures to keep the bridge's character should be explored.	History, uniqueness		
Online	132	No	Agree	Is a tunnel feasible? I assume it isn't. I would like to see some consideration for inclusion of a MAX connection over the bridge. Assuming the Steel Bridge collapses/is impassable for months/years, providing a safe mass transit option across the river w	Will the bridge become an iconic architectural show piece of the city, or is it intended to be a functional workhorse. The bridge should serve to reduce blight, attract tourists, and private investment at both ends. Avoid creating another Marquam Bridge.		Build something iconic.
Online	133	Alternative 2 - Longer fixed bridge -is preferred due to lower maintenance costs, superior seismic performance, and increased daily level of service for all modes of traffic and transit.	Strongly agree				
Online	134		Neutral - neither agree or disagree		Tolls.		
Online	135		Strongly agree	We need a reliable route for crossing the river to help with recovery.			
Online	136	See response to #5	Disagree	Option 2,3,4 seem to offer no benefit and only serve to increase taxpayer costs. Option to exten West Landon beyond 2nd ave will lead to economic blight under the bridge landing.	Homelessness, sanitation, tourism, realistic usability or the bridge and effected surrounding areas by the taxpayer		Transportation is not getting any easier in Portland, but rather more difficult. Just ask any commuter from the east side....
Online	137	I completely support the need to replace the bridge and the approaches on each end.	Strongly agree	I do not think that retrofitting the existing bridge will work, but I do believe the possibility needed to be eliminated through due diligence. I only wish the process would speed up a bit. I have attended some of the meetings and the professional enginee	I am impressed at the thoroughness with which this project is being pursued.	I have been concerned about this subject for 46 years. Full steam ahead.	I know the project needs to be done right, especially concerning soil liquifaction issues for the approaches on the river banks, but it is important to keep the momentum going. The COP has neglected its responsibility by retaining old seismic standards fo
Online	138		Agree				
Online	139		Strongly agree				
Online	140		Strongly agree	I think that the transportation people are considering a good range of options, and I appreciate that rebuilding over I-5 is considered, as it would 'pave the way' for safety improvements through that bottlenecked corridor, with the tight merge, abrupt ex	I think that it is vital to use this opportunity to move the bridge supports on the east side to better accommodate the increased traffic volumes on I-5. If placed carefully, and the bridge is designed well, ODOT's future work on the Rose Quarter Bottlene	I think some people are overthinking some things. This shouldn't take more time to decide than to build.	Remember, it's important not to turn Racial Reconciliation efforts into Reverse Racism. We should be building bridges, not starting fires on the majority side.
Online	141	Portland urgently needs a river crossing to survive the expected large earthquake coming in our future.It will no doubt be used not only by Portland and Multnomah County residents, but also people living further east, west, and south of Portland to cross	Agree	We cannot be left with no river crossing in a emergency. That said, these 4 options are reasonable to evaluate.	I think this covers the topics to be considered. I offer the comment that some are far more important than others in considering dealing with an emergency situation following a large earthquake.	I favor replacement. It is far better than any retrofit in the likelihood of surviving an earthquake.I favor the fixed bridge with a height to accommodate ships. No moving parts to fail or maintain, and no interruption of traffic. If it needs to be a m	
Online	142		Strongly disagree	Of the options proposed, I strongly disagree with the high bridge option. It would negatively impact cross streets, isolate the Skidmore and Chinatown districts from the rest of downtown, and block light to some buildings in the historic districts.	The existing Burnside bridge is an important historic structure and it has been recognized on the National Register of Historic Places. It's Portland's only City Beautiful Movement, classically inspired bridge.		

EQRB September Engagement - Survey Comments

Source	Response ID	Do you have any comments about the draft purpose and need statement?	Please indicate your level of agreement with the following statement: The four recommended options are a reasonable range of options to study in the next phase	Please describe why you feel this way and if there are any other options that you think should be considered.	The positive and negative effects of the project on the following topics will be studied in the next phase: Built and Cultural Environment Businesses and employment Economics Historic and archaeological preservation Housing Land use Parks and recr	Do you have any comments to share about the draft Feasibility Study Report?	Do you have any additional comments you'd like to share?
Online	143	Improve the conditions for people not in automobiles. It feels really dangerous. Slow down the stupid cars. There's no need for people to race across the bridge to sit at a stoplight.	Agree	Seem like good options, except the fixed one that doesn't touch down until W 5th. That's a terrible idea that will make Old Town even worse.	PERDESTRIANS		
Online	144		Agree		Is there any way to preserve the Burnside Skate Park? It has a certain amount of cultural significance.		
Online	145		Strongly agree			Best option appears to be the low-existing alignment replacement. How long would it be between demolition of existing bridge and completed construction of new bridge? Has there been an alternative considered - constructing a new bridge adjacent to the b	
Online	146	N/A	Neutral - neither agree or disagree	Tunnel options are neither discussed nor specifically discounted (for cost purpose, etc.). Also the Couch approach option needs to be clearer that it has pedestrian connections on both approaches, so that the difficulty of reaching the Morrison Bridge as	N/A	Are we aware of any potential timelines for I-5 work (beyond the current retrofit work)? If more substantial work/replacement/undergrounding of any part of I-5 is potentially to be proposed within the timeline for this BB project, a lot of the rationale f	Please make sure that any project retains or enhances the pedestrian accessibility of the existing bridge.
Online	147		Agree			Fixed bridge option is the only viable choice to avoid disrupting travel. A protected bike lane on each side or two-way bike lane is needed, as well as better pedestrian infrastructure and safe crossings/access points at bridgeheads.	
Online	148	It seems to me a key component of the study should include a projected schedule for each option. I'm guessing option one would take less time than say option 4 and not sure how the other two compare but the time-critical aspect of this seismic upgrade sho	Agree	A new bridge that addresses TriMet's concerns with the steel bridge in addition to addressing the need for at least one seismically safe bridge in this town. If we are going to build a new ONE lets get it right.	schedule specific to each option		please move quickly on this. the city's ability to maintain vehicular access across the river following a devastating seismic event should be a paramount concern as relates to providing emergency services and citizen connectability between the east and we
Online	149		Agree		Please provide generous space for protected bicycle lanes and dedicated transit lanes!		
Online	150	Go with new Movable with NE Couch Connection	Agree				Expedite this project.
Online	151	The need statement clearly outlines why the Sellwood and Tillikum are not sufficient for Portland's needs. I think these are going to be the biggest questions from the public going forward and should be emphasized more.	Strongly agree		City-level resiliency and decreasing the recovery time of Portland after an earthquake should be more explicitly stated.		I am really excited to see this project moving forward! I strongly believe in the need to improve the planning and resiliency of the PNW to a Cascadia quake, and that conversation is impossible without including Portland's bridges.
Online	152						September 30, 2018 Thank you for giving me this opportunity to comment on the Earthquake Ready Burnside Bridge Draft Feasibility Report. By way of introduction, I am a public interest advocate with an MS in geology (University of Montana, 1982) and a lon
In-person	NA	Great job in "asking the question"					

EQRB September Engagement - Survey Comments

Source	Response ID	Do you have any comments about the draft purpose and need statement?	Please indicate your level of agreement with the following statement: The four recommended options are a reasonable range of options to study in the next phase	Please describe why you feel this way and if there are any other options that you think should be considered.	The positive and negative effects of the project on the following topics will be studied in the next phase: Built and Cultural Environment Businesses and employment Economics Historic and archaeological preservation Housing Land use Parks and recr	Do you have any comments to share about the draft Feasibility Study Report?	Do you have any additional comments you'd like to share?
In-person	NA	Be clear that NO bridge and/or approaches are seismically resilient					
In-person	NA		Neutral - neither agree or disagree	3 - "Tear down bridge" versus 1 - "Save bridge or retrofit it." Not a lot of options except tearing it down.	The Jantzen Beach Carousel is available for this area (Restore Oregon). This would be great under the Burnside Bridge.		Must coordinate with Broadway/Hoyt post office Project and with Portland Parks & Rec for the North Park Blocks. How will new project be maintained in future?
In-person	NA	Nice work	Strongly agree	You have deliberated on so many, I appreciate you thinking ahead	Having more than the main option -- allow for variety in an emergency	I'm glad it's online so I can tell others	Thanks for starting the process. I'm reading the book Nudge and being the one to start the question goes a long way to direct people along and move in a positive direction.
In-person	NA			Though I understand why the range of options must be explored, I believe the fixed bridge option unnecessarily prioritizes river traffic over more intense uses	Construction mitigation for existing businesses are never adequate. Businesses, particularly retail, will suffer.		Provide neighborhood enhancements to help offset impact of construction -- multiple skate parks, sponsorship of events. Business evaluation and resulting operating capital during construction. Business will suffer 70% plus reduction in sales.
In-person	NA				Post office site and North Park Blocks; impacts to the neighborhood; Bud Clark Commons - more people moving in - 600 employees; Would like the Jantzen Beach Carousel placed near the bridge; Japanese Mermaid; Mermaid parade - need more swimming areas in th		
In-person	NA		Strongly agree	Not, because other bridges were ruled out as options in previous evaluation.		It was easier to understand by interacting with designers at the open house than looking at a computer screen.	Prefer #1 if the hinges on the new movable span can be engineered/built to withstand an earthquake. Or the bridge will still be passable/useable even if the lift mechanism fails. I say this because the other non-strengthened Mult Co. bridges will probably
			Agree	Glad someone is thinking through all the variables	Right now these bridges are wide and long streches of pavement, any way to get planter strips and trees on it?		Informational events. Maybe next time holding it at street level could mull in more street traffic?
			Strongly agree	I am not a professional in this field and I trust that these four options have been selected b/c they're the most feasible for our rapidly growing city.			

EQRB September Engagement - Comment Submission Form and Email

Date	Source	Comment	Response	Mode of Response (email, phone call, etc)
9/6/2018	Online Open House	I vote for the fixed bridge replacement for lots of reasons but mainly more pedestrians, etc would use this bridge because they could avoid the homeless, trash, etc. mess that currently exists making that area unsafe.	"Thanks for the email and we will add you to our project list. If you have a few minutes this month, please take our online survey. That is the best way to get your comments into the record. Thanks."	Email
9/5/2018	Online Open House	There was a recent Oregonian article regarding the Steel Bridge. Trimet is worried about it's continued use for light rail and they are considering options. Would it make sense to replace the Steel Bridge, at that narrow portion of the river, with a transit and train friendly bridge? Would Union Pacific pay for part of it?		
9/5/2018	Online Open House	Time is of the essence! We are decades late dealing with earthquake resiliency. We certainly need one earthquake survivable bridge actually more than one. The time line is too long, we should be building this bridge on an expedited schedule! As you know the responses to a big earthquake will be coming from east of the Cascades, and certainly all of Western Oregon needs to able to connect to that relief. Thanks for this communication of your options. I fully support fully speed ahead!	"Thank you for the email and for the encouragement to work faster to get the bridge earthquake-ready. We agree! We are expediting the schedule as much as we can, while following the federally-dictated process. We have funding through the environmental review phase and will be focusing on funding the design and construction phases next. The Sellwood Bridge is earthquake ready and the Tilikum Crossing river spans are too, but the Tilikum approaches are not and might not be usable after a major quake. Stay tuned for more updates and please take our online survey by Sept. 30."	Email
9/3/2018	Online Open House	Will all 4 of the colored schematics on the Earthquake Ready fliers, include making the access to the replacement Burnside Bridge, seismically sound? I keep hearing that the Tillicum and the Sellwood bridges are seismically sound but that the approaches are not. I don't understand the reasoning for that incomplete execution of a seismic qualification. Can't engineering make ramps seismically stable?	"Thanks for the email and the request to be added to our project list. We will keep you posted on the project. Yes, all 4 of the recommended alternatives for the Burnside Bridge would provide a bridge that could withstand a major earthquake, including the approaches to the bridge. The Sellwood Bridge approaches and river spans are built to a standard to withstand a major earthquake. The river spans of the Tilikum Bridge are built to that same standard. Unfortunately, TriMet was short of funds and decided to not design the approaches to the Tilikum to the same standard. It was only due to a lack of funds: approaches can be designed to survive a major earthquake."	Email
9/1/2018	Online Open House	The new bridge needs to last 100 years or more, even after a subduction zone quake hits Portland. I have no idea whether anyone knows how to build a bridge that needs only minor repairs after a 7.5 event (or whatever it would be this far inland from the subduction zone.) So it's worth it to disrupt traffic and spend a lot of money for this important infrastructure; we don't get the opportunity often to build new bridges. It's also worth it for engineers to do careful and diligent research on structures around the world that have survived similar quakes.	Thanks Connie. We will add you to our project list for updates. Bridges can be designed to withstand the forces of a major earthquake. Thank you for your support for our efforts to do that in Portland.	Email
9/9/2018	Online Open House	If the purpose is an emergency route and be earthquake ready then you only really have one option the fixed bridge option. You don't want to rely on moving parts during an emergency as they may not have the power they need to operate when needed during an emergency.		

EQRB September Engagement - Comment Submission Form and Email

Date	Source	Comment	Response	Mode of Response (email, phone call, etc)
9/14/2018	Online Open House	I enjoyed meeting the project associates Thursday. In the course of our conversations, a number of points were made and I would like to clarify some of them in writing. These comments assume that the West Central City (WCC) ends effectively around 38th and that it will not be possible to relieve people west of that line. In defending this comment, I point out that west of that line landslides are already in prominent evidence and that Burnside will be useless after the Uptown Shopping Center/entrance to Washington Park. In addition, these comments restrict the WCC to the rectangle bounded by the river, 38th, Vaughn Street and Gaines Street. In order to evaluate the risk we need to consider the affected population in two phases, both of which rely on at least one secure river crossing:-Phase one is 72 hours of support in place requiring water, food, medicine and shelter. During this time, organization for the next phase takes place.-Phase two is the total evacuation of the WCC population to safe temporary shelter. To evaluate the needs, I propose a set of escalating Plausible Worst Case Scenarios (PWCSs), which are just that, they are not just possibilities but probabilities. They are NOT the Hollywood version in which and earthquake is followed by an asteroid strike followed by an invasion of brain eating aliens. If it comes to that, we can just call in Jennifer Lawrence and let her take care of it. The questions asked should be evaluated for current population as well as projections for 2025 and 2050, The projections are important because even a "large" investment today by seem "reasonable" to populations of 2025 or 2050,- PWCS(0): What is the total static population of WCC, census 10PM?- PWCS(1): What is the mobility impaired (MI) population? Evacuating an MI person consumes more resources than a non-MI person. If it is difficult to arrive at a census, I suggest that PWCS(1) = PWCS(0) + [25% of all static residents over age 65] as a surrogate for evacuation planning.- PWCS(2): What is the net visiting population (NVP), that is the non-resident visitors to WCC for work or tourism? The census for PWCS(2) is noon on a work day.- PWCS(3) assumes PWCS(2) from 15 December to 15 February.		
9/19/2018	2018-09-13 Open House	Thank you very much for this information. I appreciate your diligence get getting it to us and I will share with our community. To reiterate my points to you, Mike, one of the unmet challenges in large public works projects are the impacts on neighboring businesses. I saw this first hand as a PDC official responsible for Old Town when both the streetscapes on 3rd and 4th resulted in Chinese restaurants closing (ironic since the streetscapes where done to highlight Chinese, Japanese, Greek, Jewish and African American roots of the neighborhood) and also the transit mall project, which was done differently. Though these businesses may have been suffering already, the project put them out of business. Educating, evaluating and ascertaining the many ways in which business interruption can be mitigated, can make public projects more palatable and helpful to having businesses survive. One great difference was how business improvement was built into the transit mall upgrade through some visioning that resulted in storefront improvements - a designer was hired by PDC to envision improved storefronts on each block of the transit mall. These were shown to both business owners and property owners. Here still, business evaluation and mitigation was still a challenge, however at least something was done to think about this ahead of time. Mike, as you mentioned the cost of a temporary bridge in the tens of millions, it seemed like “trading” a fraction of that amount for some real support for businesses surrounding the construction and/or generosity with relocation would go a long way. I’ve advocated for same along Division bus project early on in the process. Unfortualtely, Tri-Met is taking the position that the disruption will be minimal. What’s tough about that is that retail customers are as fickle as it gets - if there’s any disruption whatsoever, they stay away, period. Coming up with ways to truly mitigate that takes creativity. You’re all early enough in this process to think about that - events, highlights, business evaluation and working capital assistance, working directly with landlords to recognize the value of retaining a business, etc.. Happy, even excited to keep up this conversation if you are interested.	Our conversation at last week's open house really stuck with me. Thank you for raising all these business impact issues with us so early in the project. We will definitely want to explore the impacts with you and other business reps in the planning phase that begins this fall and leads to selection of the preferred alternative. We will also want input from people like you on how to mitigate the construction impacts on businesses, such as the ways you mention below. Old Town Community Association will be represented on our Community Task Force and we can schedule other meetings on this issue specifically. I'll make sure you are on our project list. We will definitely be working with you and others on the business impacts issue. Thanks again for your early advocacy.	Email

EQRB September Engagement - Comment Submission Form and Email

Date	Source	Comment	Response	Mode of Response (email, phone call, etc)
9/21/2018	Email	I did have a question regarding clearance and river traffic. The plan details a 10' reduction of vertical clearance in both the main span west and east approaches. What will be the clearance from the river at ordinary high water to the east and west spans of the bridge after construction is complete? ------response: I believe it was information related to the construction project. Below is the link where I gleaned that information. https://multco.us/bridges/burnside-construction-impacts-river-traffic------response: Sounds great! Thanks for the clarification.-----more comments: Thanks again for your earlier responses. I have a couple follow up questions if you don't mind. I noticed a survey was prepared for river-users https://multco.us/earthquake-ready-burnside-bridge/webform/river-user-survey Would you mind letting me know who (which groups) received this survey? For example, was it sent to river users such as Sailboat clubs, or any other boating organization? At the beginning of the survey there is mention about vertical clearance. "For river users, the current Burnside Bridge has a vertical clearance of 64.0 feet at river level 0.0 (Columbia River Datum), and a horizontal clearance in the navigation channel of 205 feet." Work on the East span looks to occur during high water flows of fall/spring. Can you tell me what the clearance during that period of time will be for river travel at the ordinary high water level? Do you anticipate boaters will be able to pass under the east/west span during construction? Or will they all be pushed to the center channel? Lastly, For night-time closures indicated in the Eastbank Esplanade (https://multco.us/bridges/burnside-construction-impacts) will that include an impact to the Duckworth Memorial Dock, just north of the burnside bridge and adjacent to the Eastbank Esplanade. Do you know where work barrages will be staged? question----Thanks again for your earlier responses. I have a couple follow up questions if you don't mind. I noticed a survey was prepared for river-users https://multco.us/earthquake-ready-burnside-bridge/webform/river-user-survey. Would you mind letting me know who (which groups) received this survey? For example, was it sent to river users such as Sailboat clubs, or any other boating organization? At the beginning of the survey there is mention about vertical clearance. "For river users, the current Burnside Bridge has a vertical clearance of 64.0 feet at river level 0.0 (Columbia River Datum), and a horizontal clearance in the navigation channel of 205 feet." Work on the East span looks to occur during high water flows of fall/spring. Can you tell me what the clearance during that period of time will be for river travel at the ordinary high water level? Do you anticipate boaters will be able to pass under the east/west span during construction? Or will they all be pushed to the center channel? Lastly, For night-time closures indicated in the Eastbank Esplanade (https://multco.us/bridges/burnside-construction-impacts) will that include an impact to the Duckworth Memorial Dock, just north of the burnside bridge and adjacent to the Eastbank Esplanade. Do you know where work barrages will be staged?	For our Earthquake Ready Burnside Bridge project, I don't believe we have made any plans for vertical clearance, since we are so early in the planning phase. Are you referring to that planning project or to the current construction project on the Burnside Bridge, which has limited the drawbridge to single leaf openings? Can you let me know where you found the 10 foot reduction in clearance info? Thanks.------response: Thanks for explaining that the question is about the current construction project. I think the final vertical clearance will be the same as it was prior to construction. I will confirm that and let you know by Monday. ----I confirmed with the project manager that the Burnside Bridge vertical clearance post construction remains the same as before. The reduction is only for the temporary scaffolding while the bridge truss is being painted. Let me know if you have any questions. response -----Thanks for the email. A co-worker of mine is taking the lead on the river user survey. She has your email and will work on getting you a reply.	Email
9/29/2018	Email	I endorse a 5th option which is to build boat ramps on both sides of the river regardless of options 1 to 4. This would allow East and West access for personnel and equipment during catastrophe. Thanks. Robert L Garrett ------response: Yes, I agree. I appreciate your comments and rapid response.	Thank you for the comment, which we will add to our summary. We did look at water taxis and even trams and tunnels as non-bridge options. The water taxis don't have the capacity to carry the traffic needed. But I agree that docks can provide a good backup crossing in a post-quake Portland. Thanks again.	Email
9/30/2018	Email	Please build a bridge that does not need to be opened for ship traffic. If we have a major earthquake, you cannot be certain the mechanism will withstand the event. More realistically, a bridge that's high enough to not require lifts will absolutely improve east/west traffic flow now, and we need that now.	Thanks very much for sharing your preference on the best option for the Burnside Bridge. We propose including a high fixed-span bridge in the group of options that we study in depth in the next phase. As you point out, a fixed bridge has some big advantages for daily traffic and being resilient in a major quake. We will add you to our project email list to keep you posted as we move forward.	Email

EQRB September Engagement - Comment Submission Form and Email

Date	Source	Comment	Response	Mode of Response (email, phone call, etc)
9/30/2018	Email	Hi Mike, I have copied below (and attached it as an MS Word file) a letter prepared by the City Club Earthquake Resilience Advocacy Committee concerning the ERQB project draft report and a brief analysis for your Open House. If you have any questions, please let me know. Best regards, Tom Megan Neil September 30, 2018 Project Manager - Earthquake Ready Burnside Bridge Project Multnomah County Bridge Section Department of Community Services 1403 SE Water Ave., Portland OR 97214 We are the City Club of Portland Earthquake Resilience Advocacy Committee. We have been tasked by the City Club to support efforts that increase our region's resilience in the face of the inevitable Cascadia Subduction Zone earthquake. This advocacy is based on the 2017 research report "Big Steps Before the Big One", which was approved by a 98% "yes" vote of the 2000-member City Club. Our committee has analyzed the "Earthquake Ready Burnside Bridge Draft Feasibility Report" prepared by Multnomah County and are responding to your current "Open House" on the project. We commend Multnomah County for undertaking this important effort to upgrade our region's river crossings. The existing bridges are not built to withstand an earthquake of the expected scale, and without safe and immediately usable crossings, our region will face a much slower and more difficult recovery. One of the recommendations of the City Club from the research report is to replace the Burnside Bridge with a seismically resilient bridge as soon as possible. After reviewing the feasibility study on the Burnside bridge project, we feel confident that all four options pass our requirements of making Portland safer and more likely to recover quickly after the earthquake. Decades could pass before we have another opportunity to improve this critical lifeline route. With that in mind, we feel that the fixed bridge span is the best option. Lower long-term maintenance costs have the potential to more than offset the modest increase in construction costs. When combined with the bridge's improved performance on other ratings, the fixed bridge option is the clear front runner. We also are concerned that the retrofit option scores relatively poorly on seismic resilience compared to the three replacement alternatives, and so we do not prefer the	Thank you and the committee for taking the time to review our draft report and provide such clear and thoughtful feedback. This is very good input. I will share it with Megan and our team so it can become part of the public comment summary for the report. We look forward to keeping in touch with your committee as we head into the environmental review phase.	Email

Megan Neil September 30, 2018
Project Manager - Earthquake Ready Burnside Bridge Project
Multnomah County Bridge Section
Department of Community Services
1403 SE Water Ave., Portland OR 97214

We are the City Club of Portland Earthquake Resilience Advocacy Committee. We have been tasked by the City Club to support efforts that increase our region's resilience in the face of the inevitable Cascadia Subduction Zone earthquake. This advocacy is based on the 2017 research report "Big Steps Before the Big One", which was approved by a 98% "yes" vote of the 2000-member City Club. Our committee has analyzed the "Earthquake Ready Burnside Bridge Draft Feasibility Report" prepared by Multnomah County and are responding to your current "Open House" on the project.

We commend Multnomah County for undertaking this important effort to upgrade our region's river crossings. The existing bridges are not built to withstand an earthquake of the expected scale, and without safe and immediately usable crossings, our region will face a much slower and more difficult recovery. One of the recommendations of the City Club from the research report is to replace the Burnside Bridge with a seismically resilient bridge as soon as possible.

After reviewing the feasibility study on the Burnside bridge project, we feel confident that all four options pass our requirements of making Portland safer and more likely to recover quickly after the earthquake.

Decades could pass before we have another opportunity to improve this critical lifeline route. With that in mind, we feel that the fixed bridge span is the best option. Lower long-term maintenance costs have the potential to more than offset the modest increase in construction costs. When combined with the bridge's improved performance on other ratings, the fixed bridge option is the clear front runner. We also are concerned that the retrofit option scores relatively poorly on seismic resilience compared to the three replacement alternatives, and so we do not prefer the retrofit alternative.

However, all four of these options would be vast improvements over our current situation and we support the resilient bridge option that has the most likely chance of being built. Thank you for taking the time to hear our thoughts.

City Club of Portland Earthquake Resilience Advocacy Committee
Teri Martin, Chair
Tom Dyke, Rob Fullmer, Kevin Glenn; Building and Transportation Sub-committee

Committee Members: Mitch Bixby, Anne Castleton, Tom Dyke, Barnes Ellis, Rob Fullmer, Kevin Glenn, Sarah Heinicke, Rosa Lehman, Teri Martin, Jeremy O'Leary, Kimberly Wilson

OLD TOWN

CHINATOWN JAPANTOWN ANKENY PLAZA SKIDMORE WATERFRONT

October 22, 2018

Multnomah County Commissioners
501 SE Hawthorne Blvd
Portland, OR 97214

Re: Earthquake Ready Burnside Bridge proposed options for National Environmental Protection Act (NEPA) study.

Dear Chair Kafoury and County Commissioners,

The Board of the Old Town Community Association has recently reviewed information on the four proposed options for improving or replacing the Burnside Bridge so the crossing is substantially more capable of surviving earthquakes widely known to be expected.

The western entrance to the Burnside Bridge runs through the Old Town neighborhood. A number of buildings that are contributing resources to the Skidmore National Landmark Historic District, an elevated designation "in recognition of its national significance within the broader contexts of America's history and architecture," abut the current bridge including those containing the University of Oregon, Portland Rescue Mission and Salvation Army. Additionally, Portland Saturday Market has operated under the bridge for decades with recent improvements under the bridge in Waterfront Park and has their offices in a building with an entrance onto the bridge. Of the three bridges entering Old Town, it by far has the most direct access to the heart of the neighborhood.

Regardless of replacement or rehabilitation to the Burnside Bridge, it will have significant impact to the neighborhood during construction. However, the "Fixed-Bridge" option would significantly alter access to the neighborhood as it would eliminate access at 2nd, 3rd and 4th avenue – 4th avenue is the location of the Chinatown gate. Although the bridge viaduct provides cover for Portland Saturday Market, other accesses and uses under the bridge, when not highly managed, has been a safety concern in the neighborhood, requiring additional safety and security measures. It is for these reasons that the Old Town Community Association is against consideration of the Fixed Bridge option.

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[1] City of Portland Skidmore/Old Town Historic District Design Guidelines, adopted by ordinance No 18738, May 11, 2016, effective June 10, 2016

While we understand there is likely a need to study this option to address later query of a fixed bridge alternative, the impact to Old Town is so severe we thought it necessary to voice our views early in the process. Old Town Community Association has representation on the advisory committee and is aware that other Old Town organizations also have representation. We also know this will not be the last time to provide input.

We look forward to further study and understanding of all the options.

Sincerely,

Helen Ying, Chair
Cal Skate Skateboards

Phil Lundberg, Secretary
Oregon College of Oriental Medicine

Peter Englander, Treasurer
Deadstock Coffee

Will Naito, Board Member
Fortune

Dan Lenzen , Board Member
Venture Hospitality

Candee Wilson , Board Member
Resident

Jane Gordon, Board Member
University of Oregon

David Leiken, Board Member
Roseland Theater

Lisa James, Board Member
Lan Su Chinese Garden

Sharon Fitzgerald, Board Member
Central City Concern

Terry Chung, Board Member
Portland Chinatown History Foundation

City of Portland

Design Commission

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October 31, 2018

Multnomah County Board of Commissioners
501 SE Hawthorne Blvd, Suite 6000
Portland, OR 97214-3587

Dear Multnomah County Board of Commissioners,

The Burnside Bridge: Earthquake Readiness project previously came before the Portland Design Commission (DC) on October 18, 2018. At this briefing four bridge options were presented: the "Enhanced Seismic Retrofit", "Replacement: Fixed Bridge", "Replacement: Movable Bridge" and the "Replacement: NE Couch Connection". At this meeting the DC was also briefed by staff on concerns held by the Portland Historic Landmarks Commission (PHLC). While the DC understands that the final design of the proposed bridge is still years away, we would like to voice support for the PHLC's strong concerns and hesitation towards the proposed "Replacement: Fixed Bridge" option.

As reiterated by the PHLC, the DC believes the impacts that the "Replacement: Fixed Bridge" would have to the context and public realms of the Skidmore/Old Town Historic District and the New Chinatown/Japantown Historic District are too significant to justify the option moving forward and would result in a design solution inconsistent with the City of Portland's goal of design excellence.

Thank you for your consideration,

Julie Livingston, Chair

Tad Savinar, Vice Chair

Andrew Clarke

Jessica Molinar

Sam Rodriguez

Zari Santner

Don Vallaster

City of Portland
Historic Landmarks Commission

1900 SW Fourth Ave., Suite 5000 / 16
Portland, Oregon 97201
Telephone: (503) 823-7300
TDD: (503) 823-6868
FAX: (503) 823-5630
www.portlandonline.com/bds

October 31, 2018

Multnomah County Board of Commissioners
501 SE Hawthorne Blvd, Suite 6000
Portland, OR 97214-3587

Dear Multnomah County Board of Commissioners,

The Burnside Bridge: Earthquake Readiness project previously came before the Portland Historic Landmarks Commission (PHLC) on September 11, 2017, June 25, 2018 and October 08, 2018. At the most recent briefing four bridge options were presented: the "Enhanced Seismic Retrofit", "Replacement: Fixed Bridge", "Replacement: Movable Bridge" and the "Replacement: NE Couch Connection". While the PHLC understands that the final design of the proposed bridge is still years away, we would like to voice strong concern and hesitation for the proposed "Replacement: Fixed Bridge" option and mention a few additional important issues regarding the site and the process:

- Regarding the proposed "Replacement: Fixed Bridge" option:
  Unlike the other proposed options which show a west landing at NW 2nd Avenue, the "Replacement: Fixed Bridge" proposes a landing at NW 5th Avenue. This would extend the bridge into both the Skidmore/Old Town Historic District and the New Chinatown/Japantown Historic District and would have a significant impact to both historic districts' streetscapes and public realms.

- Regarding the Hierarchy of Historic Resources Impacted:
  While the Burnside Bridge is an individually listed landmark on the National Register, the Skidmore/Old Town Historic District is a National Historic Landmark District and so supersedes the Burnside Bridge in its significance. With this, we reiterate our concern for the proposed "Replacement: Fixed Bridge", which would have the greatest negative impact on the National Landmark historic district.

- Regarding Type IV Demolition Reviews:
  All of the proposed bridge options except the "Enhanced Seismic Retrofit" will require Type IV Demolition Review due to the removal of the existing Burnside Bridge, a landmark listed on the National Register. Type IV Demolition reviews will also be required for any "contributing" structures within the historic districts or landmarks needing to be removed due to the proposed design of the replacement bridge. Type IV Demolition Reviews are a component of the City of Portland Title 33 zoning code and are not superseded by NEPA.

- Regarding Mitigation:
  Mitigation for the impacts to the Burnside Bridge and the historic districts should be proportional. PHLC suggests that the mitigation component need not necessarily be tied to saving portions of the bridge, but could potentially be for a historic resources inventory of a neighborhood nearby, etc.

Thank you for your consideration,

Kristen Minor
Chair, Portland Historic Landmarks Commission

Maya Foty
Vice Chair, Portland Historic Landmarks Commission

Attachment B. Open House Display Boards

WELCOME

Earthquake Ready Burnside Bridge Open House

BETTER - SAFER - CONNECTED

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

EARTHQUAKE READY BURNSIDE BRIDGE

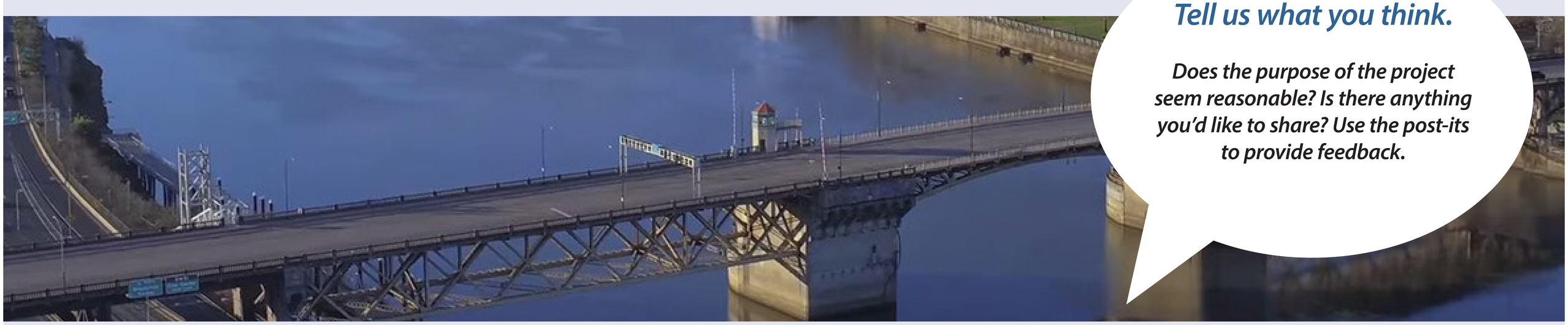
Project Purpose

BETTER - SAFER - CONNECTED

The primary purpose of this project is to create a seismically resilient Burnside Street lifeline crossing of the Willamette River that will remain fully operational and accessible for vehicles and other modes of transportation immediately following a major CSZ earthquake.

A seismically resilient Burnside Bridge will support the region's ability to provide rapid and reliable emergency response, rescue and evacuation after a major earthquake, as well as enable post-earthquake economic recovery.

In addition to ensuring that the crossing is seismically resilient, the purpose is also to provide a long-term, low-maintenance and safe crossing for all users.



Tell us what you think.

Does the purpose of the project seem reasonable? Is there anything you'd like to share? Use the post-its to provide feedback.

(Read the full Purpose & Need statement in the handout on the table.)

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

Project Need

BETTER - SAFER - CONNECTED

The Earthquake Ready Burnside Bridge project is intended to address the following needs:

- **Need for a Seismically Resilient River Crossing and Lifeline Route**
- **Need for Post-Earthquake Emergency Response**
- **Need for Post-Earthquake Recovery**
- **Need for Emergency Transportation Routes and Seismic Resiliency as Stated in Plan and Policy Directives**
- **Need for Long-term, Multi-Modal Travel Across the River**

Tell us what you think.

Does the need for the project seem reasonable? Is there anything you'd like to share? Use the post-its to provide feedback.

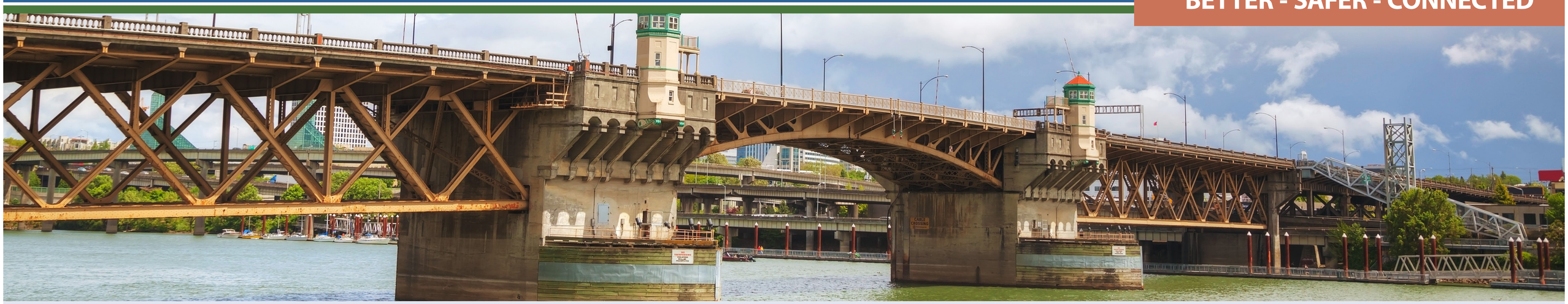
(Read the full Purpose & Need statement in the handout on the table.)

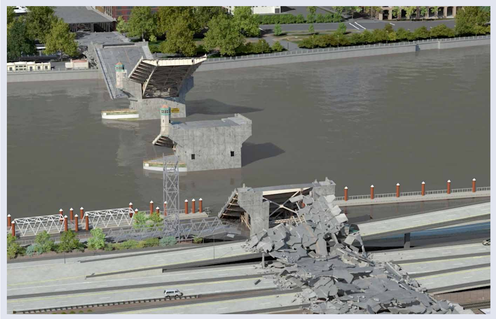
Multnomah County

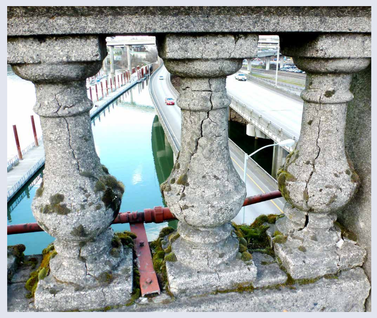
EARTHQUAKE READY BURNSIDE BRIDGE

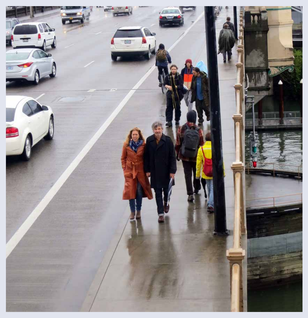
Project Background

BETTER - SAFER - CONNECTED









Bridge Statistics

Type: Strauss-type double-leaf bascule
Built: 1926
Length: 2,241 feet
Width: 86 feet
Lanes: 5 vehicle lanes, 2 bike lanes
Traffic: 40,000+ vehicles/day, 2,000+ bicycles/day
Bus Lanes: Three
Bridge Lifts per year: 300

Multnomah County is working to create an earthquake-safe Willamette River crossing

Portland's aging downtown bridges are not expected to withstand a major earthquake. That is why Multnomah County is taking the lead on making at least one earthquake ready. Located in the heart of downtown, the Burnside Bridge is a regionally established lifeline route across the Willamette River.

The information presented at this open house, and the public and agency input received, may be adopted or incorporated by reference into a future environmental review process to meet the requirements of the National Environmental Policy Act.

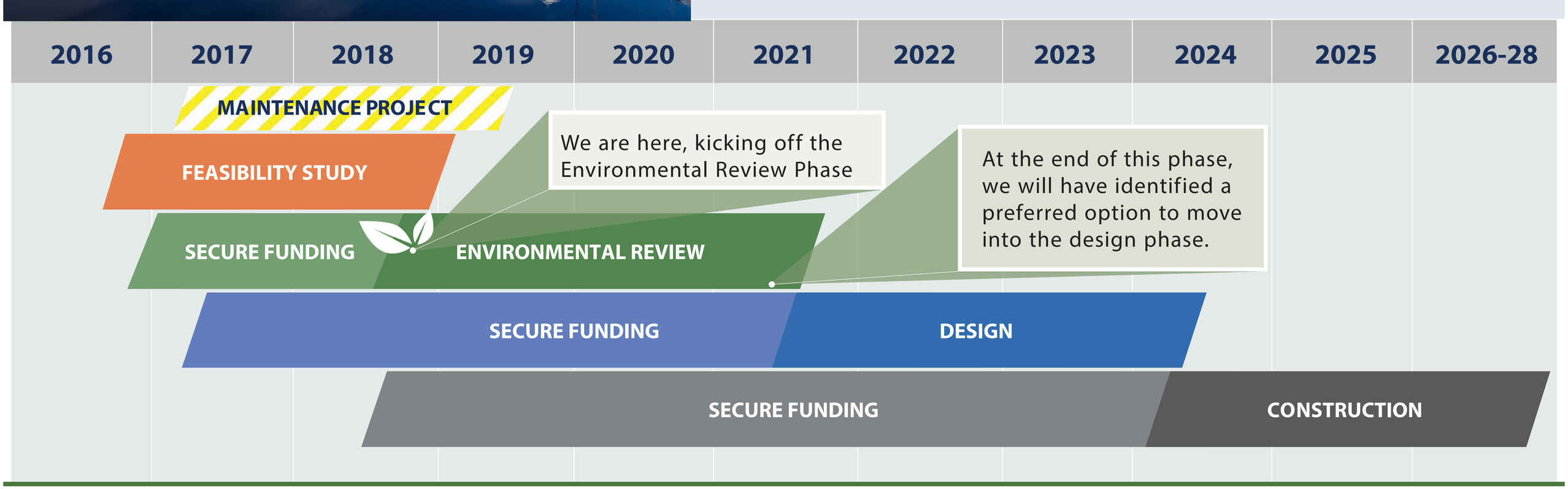
Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

Project Timeline

BETTER - SAFER - CONNECTED

The Earthquake Ready Burnside Bridge environmental review phase is just getting underway and will continue through 2021, followed by design and construction of a seismically resilient Burnside crossing.



Stay involved! We need your input to arrive at a community preferred solution.

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

Screening Process

BETTER - SAFER - CONNECTED

How are the options being narrowed?

Over 100 Willamette River crossing options were considered in an extensive screening process.

A short list consisting of Enhanced Seismic Retrofit and full Bridge Replacement options is recommended for additional study. We want to hear your feedback on:

- Project purpose and need
- Scope of the environmental study
- Screening process results
- Draft Feasibility Study

Provide your thoughts to help shape the next phase of the Earthquake Ready Burnside Bridge project.

KEY:

- ✗ Not recommended. Did not pass evaluation screening.
- ✓ Recommended for further study. Passed evaluation screening.

SCREENING STEPS

1 Each option was screened against the core requirements of seismic resiliency, emergency response, and compatibility with major infrastructure.

2 Each remaining option was evaluated on how well it functioned immediately after an earthquake in addition to everyday use.

3 Each remaining option was further evaluated for its performance in six key categories:

- **Seismic Resiliency** — Support reliable and rapid emergency response after an earthquake.
- **Non-Motorized Transportation** — Support access and safety for bicyclists, pedestrians and people with disabilities.
- **Connectivity** — Support street system integration and function for all modes.
- **Equity** — Minimize adverse impacts to historically marginalized communities.
- **Built Environment** — Promote land use compatibility and minimize impacts to parks and historic resources.
- **Financial Stewardship** — Ensure public funds are invested wisely.

OPTION GROUPS

No Build — ✗ at 1
Maintain existing bridge as-is.
These options are not seismically resilient or cannot support emergency response.

Seismic Retrofit — ✗ at 1
Upgrade the existing bridge.
A full seismic retrofit of the bridge is not feasible due to significant impacts to I-5 during construction.

Enhanced Seismic Retrofit — ✓ at 1, 2, 3
Retrofit most of the existing bridge, but replace the spans over I-5 and the railroad.

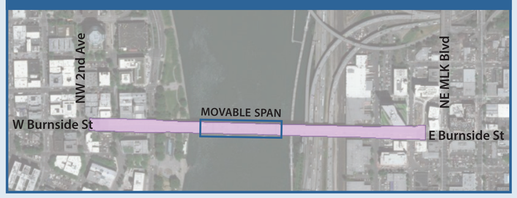
Replacement — ✓ at 1, 2, 3
Build a new crossing such as a high fixed bridge, low movable bridge, twin bridges or a tunnel.

Enhance Another Bridge — ✓ at 1, ✗ at 2
Retrofit or replace a different bridge across the Willamette River.
Other bridges do not provide a rapid and reliable connection to the Burnside lifeline route after an earthquake.

4 REMAINING OPTIONS

Four options have risen to the top through the screening process. We will be asking for your feedback before choosing the final range of options for further study in the environmental phase.

ENHANCED SEISMIC RETROFIT

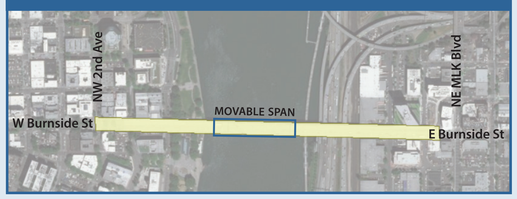


An upgrade of the existing bridge to meet current seismic standards. To reduce the construction impacts on the I-5 corridor and railroad, part of the bridge will be replaced.

REPLACEMENT: Fixed Bridge

A new fixed bridge with a maximum clearance of 97 feet, at about the same location as the current bridge. It doesn't open, but is tall enough to allow ships to pass without halting traffic. The west landing touches down about 3 blocks further west than the current bridge, near NW 5th Avenue.

REPLACEMENT: Movable Bridge



A new movable bridge at about the same height and location as the current bridge.

REPLACEMENT: Movable Bridge – NE Couch Connection

A new movable bridge at about the same height as the current bridge. The east landing splits to connect to NE Couch Street. Westbound traffic uses NE Couch Street. Eastbound traffic uses E Burnside Street.

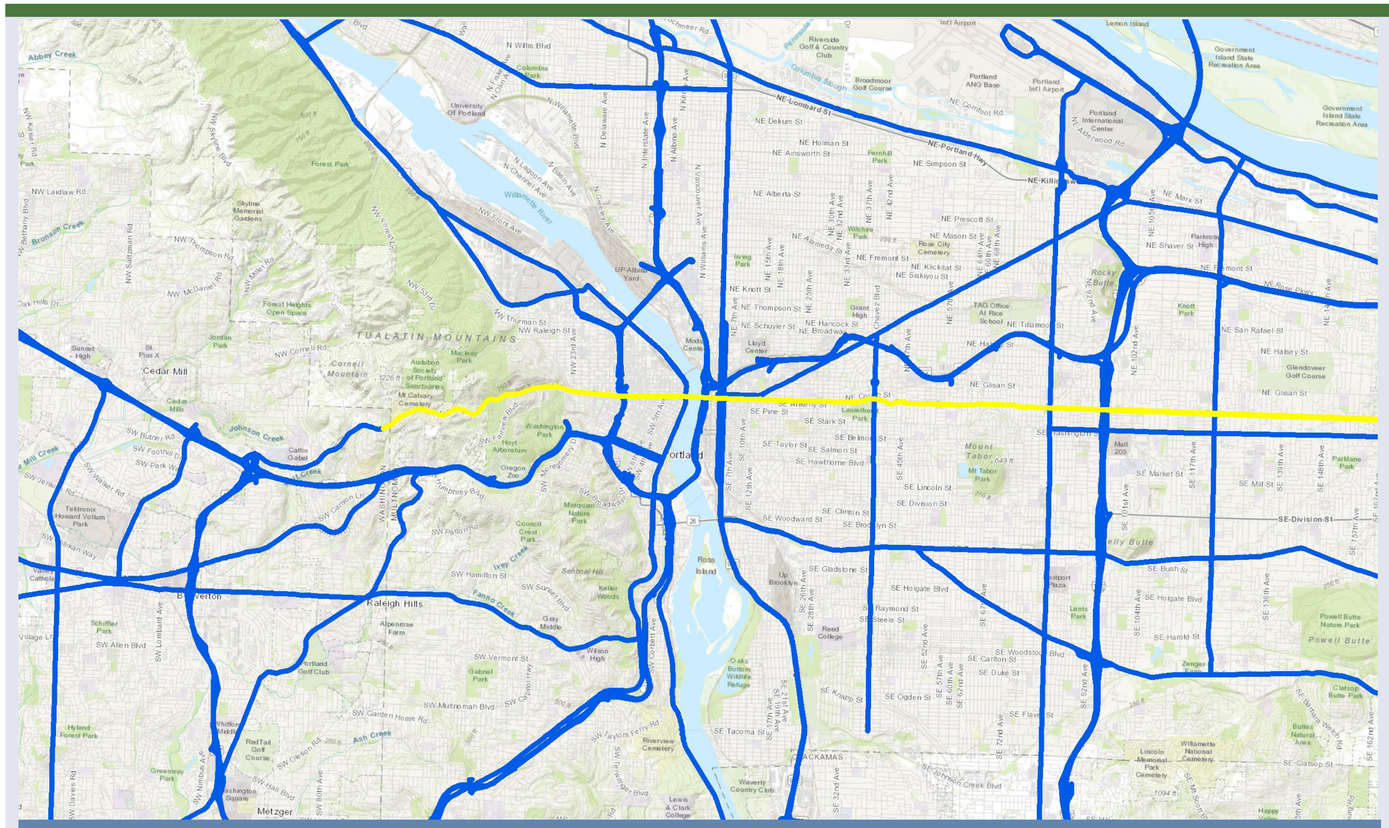
2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026-28
	MAINTENANCE PROJECT									
	FEASIBILITY STUDY									
	SECURE FUNDING	ENVIRONMENTAL REVIEW								
		SECURE FUNDING	DESIGN							
			SECURE FUNDING					CONSTRUCTION		

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

Why Burnside? *Our Regional Lifeline Route*

BETTER - SAFER - CONNECTED



What is a lifeline route?

» **Regional lifeline routes are important because they:**
- Help emergency responders get to where they need to go.
- Help families and loved ones reunite.

Help our economy recover after a major disaster.

» A lifeline route will maintain access to fire stations, hospitals and other emergency services right after a quake. After that, it will allow for food, water, medical supplies and other necessities to be brought in. It will also allow people to be evacuated to unaffected areas.

Bridge Vulnerabilities

» I-5, from Columbia River to I-205 (24 miles), has 143 seismically vulnerable structures.

» I-405, from Fremont Bridge to Marquam Bridge (4.5 miles), has 49 seismically vulnerable structures.

» I-84, from I-5 to I-205 (7 miles), has 35 seismically vulnerable structures.

» Burnside Street, from US-26 in Beaverton to Mt. Hood Highway in Gresham (19 miles), has 6 seismically vulnerable structures.

Metro declared all of Burnside Street a regional lifeline route in 1996, including the Burnside Bridge. Burnside Street runs almost 19 miles, from the Washington County line in the west to Mount Hood Highway (US 26) in the east.

Located in the heart of downtown, the Burnside Bridge is a key link across the Willamette River along Burnside Street, a regionally established lifeline route.

Burnside Street was chosen because it had the fewest risks of having overpasses collapse on it during an earthquake.

The machinery that opens the Burnside Bridge is simpler and better protected than other movable Willamette River bridges. There are also no connections to I-5. The Morrison Bridge is similar to the Burnside in how it works, but is in danger of its I-5 ramps collapsing on top of it in a quake.

Multnomah County

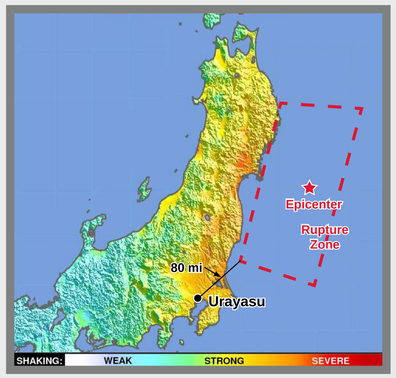
EARTHQUAKE READY BURNSIDE BRIDGE

Why Burnside? *Our Earthquake Risk*

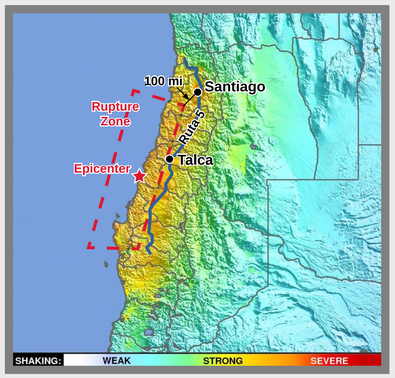
BETTER - SAFER - CONNECTED

Regional Earthquake Risk

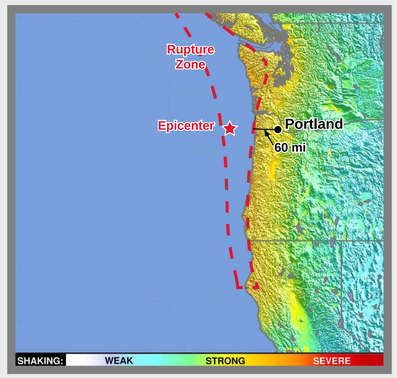
There is a 1 in 3 chance of magnitude 8+ earthquake in our region within 50 years.



Tohoku-Oki Magnitude 9.0 Earthquake
March 11, 2011



Maule Magnitude 8.8 Earthquake
February 27, 2010



Projected Cascadia Magnitude 9.0 Earthquake
Scenario

Cascadia Subduction Zone Earthquake (CSZ)

The last major quake in Oregon occurred 317 years ago, a timespan that exceeds 75% of the intervals between the major quakes to hit Oregon over the last 10,000 years. There is a significant risk that the next event will occur within the lifetimes of the majority of Oregon residents.

Santiago, Chile
(approx. 100 miles from rupture zone)

Collapsed bridge

Remnants of collapsed bridge

Ruta 5 near Talca, Chile
(near edge of rupture zone)

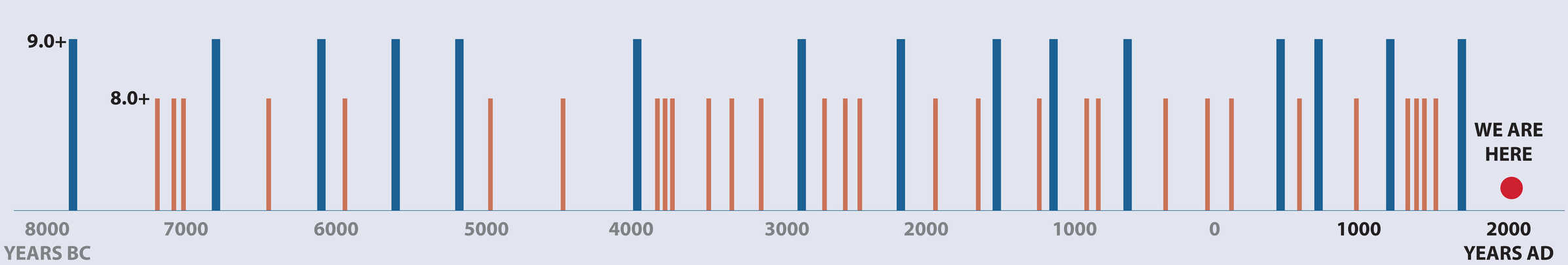
Damaged overpass approach

Collapsed bridge near Camarico

Damaged bridge south of Talca

Urayasu, Japan
(approx. 80 miles from rupture zone)

Collapsed bridge and damaged roadways



Cascadia Subduction Zone (CSZ) Earthquake – What does it mean for our us?

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

What should we be thinking about?

BETTER - SAFER - CONNECTED

Environmental Review Topics

Share your thoughts on potential issues, challenges or opportunities with the project as they relate to the below topic areas.

Transportation

Pedestrians – Bicyclists – People with Disabilities (ADA) – Transit – Motor Vehicles – Freight – River Navigation – Emerging Technology

Social Environment

Neighborhoods – Populations – Equity and Environmental Justice – Social Services – Public Services – Public Health and Safety – Emergency Response – Seismic Resiliency and Safety

Built and Cultural Environment

Land Use – Housing – Economics – Businesses and Employment – Utilities – Views and Aesthetics – Parks and Recreation – Historic and Archaeological Preservation

Natural And Physical Environment

Water Quality – Flooding – Fish, Wildlife and Vegetation – Geology and Soils – Earthquakes/Seismicity – Hazardous Materials – Air Quality – Noise – Energy

Financial

Construction Costs - Maintenance Costs

Other

Multnomah County

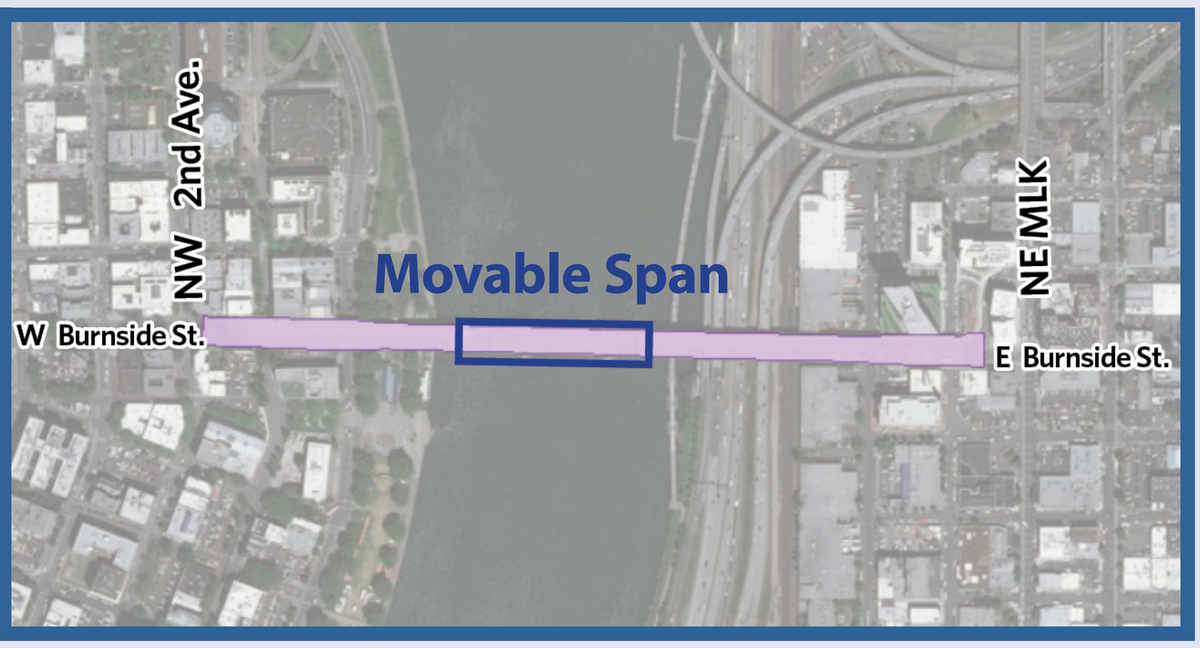
EARTHQUAKE READY BURNSIDE BRIDGE

Where are we now?

BETTER - SAFER - CONNECTED

ENHANCED SEISMIC RETROFIT

An upgrade of the existing bridge to meet current seismic standards. Because a retrofit over the I-5 corridor and railroad tracks is not feasible due to long-term closures of those facilities during construction, that portion of the bridge will be replaced.



REPLACEMENT: Fixed Bridge

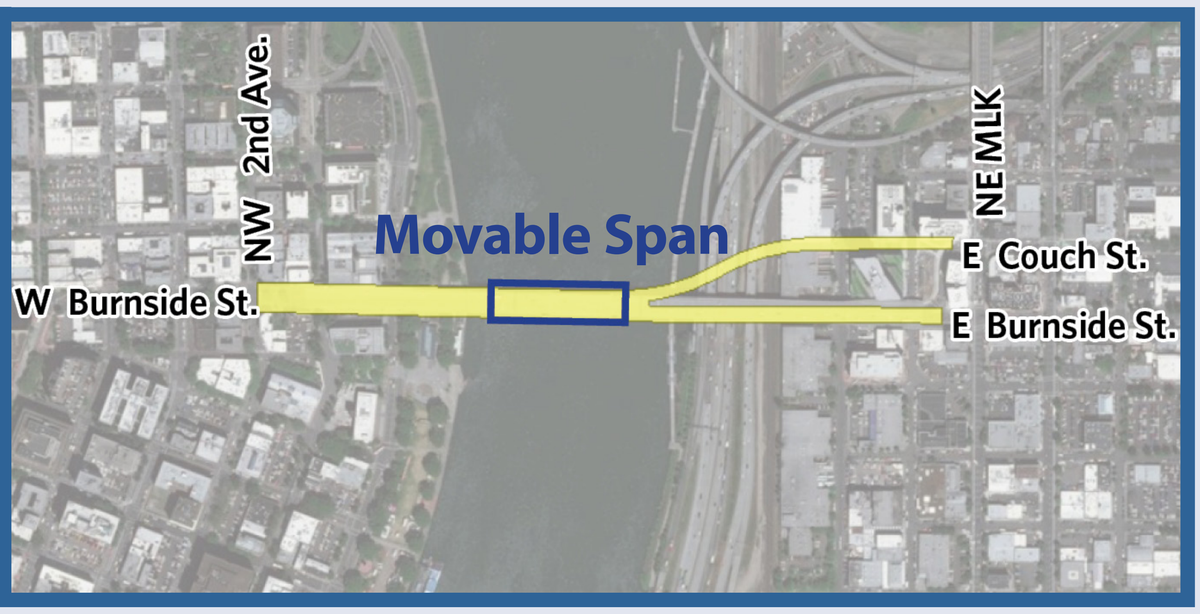
A new fixed bridge with a maximum clearance of 97 feet, at about the same location as the current bridge. It would need to be tall enough to allow ships to pass without requiring a movable span. The west landing touches down about three blocks further west than the current bridge, near NW 5th Avenue.

REPLACEMENT: Movable Bridge

A new movable bridge at about the same height and location as the current bridge.

REPLACEMENT: Movable Bridge – NE Couch Connection

A new movable bridge at about the same height as the current bridge. The east landing splits to connect to NE Couch Street. Westbound traffic enters from NE Couch Street.



4 Recommended Options

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

What is an Environmental Review?

BETTER - SAFER - CONNECTED

Assess Benefits and Impacts

Environmental review is a major phase of project planning, where we take a good hard look at the project alternatives and assess their benefits and impacts.

During environmental review, we prepare more detailed designs of the short list of alternatives. We look at how each alternative would affect social, cultural, built and natural resources. We also look at cost, ease of building, ability to survive an earthquake and other factors.

Gather Input

We gather input from the public, agencies and others who have a stake in the project.

The goal of the process is to learn what we need to make an informed decision. It guides us in deciding which alternative to build and how to build it. Which alternatives we review and how we evaluate them is influenced in part by what we hear from the community.

Decide What to Build

As part of the environmental review process, after we assess the benefits and impacts and gather input from the public and stakeholders, we will prepare an Environmental Impact Statement, or EIS. This is required by the National Environmental Policy Act, or NEPA. This will help us decide the best option to build.

National Environmental Policy Act (NEPA) Process

Feasibility Study

Scoping

- Public Outreach
- Stakeholder Briefings
- Regulatory Agency Coordination
- Purpose and Need
- Range of Alternatives
- Research Needs
- Scoping Report

2-4 Months

Draft EIS

- Define Alternatives Including No-Build
- Existing Conditions
- Impacts
- Potential Mitigation
- Regulatory Compliance
- Compare Alternatives
- Publish DEIS
- Public, Regulatory and Stakeholder Input
- Preferred Alternative

Formal Comment Period

1-2 Years

Final EIS

- Respond to Input
- Refine and Update Analysis & Alternatives
- Publish FEIS

Record of Decision

- Formal Decision
- Mitigation Commitments
- Regulatory Compliance
- Sign Record of Decision

6-18 Months

Bridge Type Selection; Final Design & Permitting; Construction

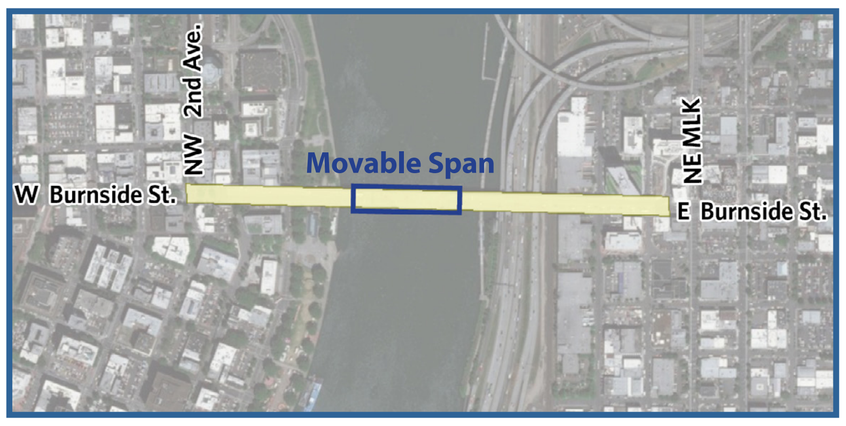
(See information handout to learn more about Environmental Reviews and the National Environmental Policy Act (NEPA).)

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

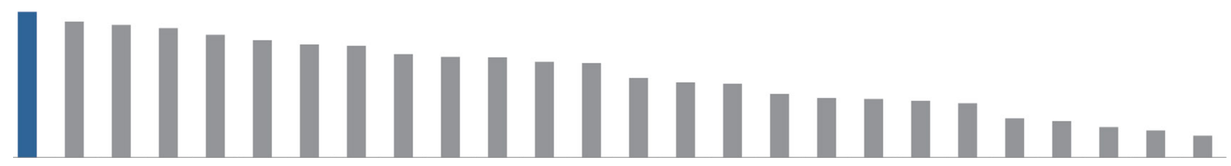
Replacement: Movable Bridge

BETTER - SAFER - CONNECTED



Description: A new movable bridge at about the same height and location as the current bridge. **Recommendation:** Advance option into NEPA Phase.

TOTAL SCORE 92%



	EVALUATION CRITERIA	SCORE	SCORING RATIONALE
SEISMIC	**1.1 Unreinforced Masonry Risk**	●	Possesses one of the lowest URM risks of the alternatives considered.
	1.2 Disabled Vehicles Risk	●	Consists of a relatively short, single bridge with the largest available width for emergency vehicle use.
NON-MOTORIZED TRANSPORTATION	**2.1 Ease of Ped + Bike Use**	●	Possesses a short length of grade exceeding 3.5%.
	2.2 Safe Ped + Bike Connections	●	Provides good connectivity potential to adjacent existing and planned bicycle and pedestrian facilities.
	2.3 Personal Security for Ped + Bikes	●	Does not contain unsafe features for bicyclists and pedestrians.
CONNECTIVITY	**3.1 Street Network Connection**	●	Does not sever or bypass any existing cross streets.
	3.2 Crossing Safety and Convenience	●	Provides reasonable roadway geometrics, and does not change any local street classifications.
	3.3 Movable Bridge (Periodic Delay)	○	Consists of a movable bridge.
EQUITY	**4.1 Social Service Impacts**	●	Does not displace or impact access to existing social services (including overnight shelters).
	4.2 Low Income Housing Impacts	●	Does not effect low income housing.
BUILT ENVIRONMENT	**5.1 Visual Impacts to Existing Buildings**	●	Does not permanently block views, light, or building access.
	5.2 Commercial + Industrial Impact	●	Does not permanently displace commercial or industrial properties.
	5.3 Low Long-term Housing Impact	●	Does not permanently displace any units of long-term housing.
	5.4 Park + Recreation Impact	●	Has a below-average amount of parks displacement, and avoids impacts to the North Park blocks and the Waterfront Park walkway.
	5.5 Historic Structures + District Impacts	●	Does not impact National Register historic resources or districts.
FINANCIAL	**6.1 Capital Cost**	●	Falls within the second lowest cost tier (between $800 million and $900 million).
	6.2 Long-term Maintenance	●	Possesses a low long-term maintenance cost.

LEGEND

● = High Score ◒ = Medium Score ○ = Low Score

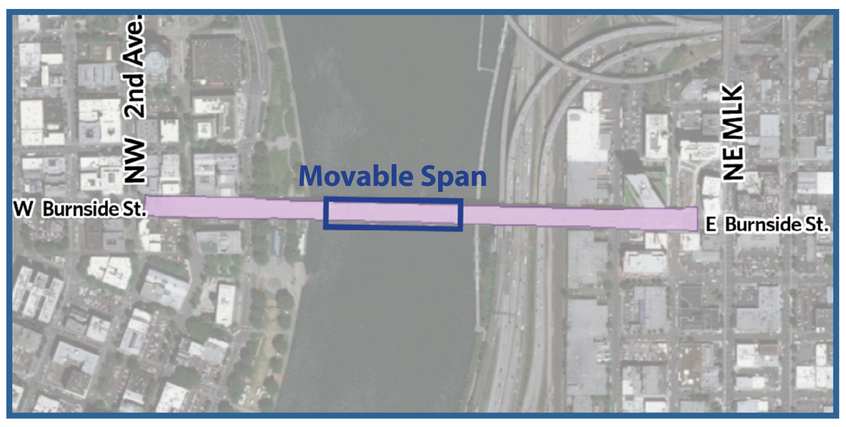
A more detailed analysis can be found in the Earthquake Ready Burnside Bridge Feasibility Report - Draft September 2018, Appendix D

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

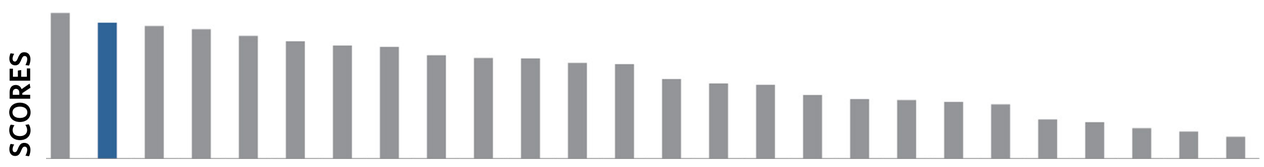
Enhanced Seismic Retrofit

BETTER - SAFER - CONNECTED



Description: An upgrade of the existing bridge to meet current seismic standards. We can't rebuild above the freeway or the railroad tracks, so that portion of the bridge will be replaced. **Recommendation:** Advance option into NEPA Phase.

TOTAL SCORE 86%



	EVALUATION CRITERIA	SCORE	SCORING RATIONALE
SEISMIC	**1.1 Unreinforced Masonry Risk**	●	Possesses one of the lowest URM risks of the alternatives considered.
	1.2 Disabled Vehicles Risk	●	Consists of a relatively short, single bridge with the largest available width for emergency vehicle use.
NON-MOTORIZED TRANSPORTATION	**2.1 Ease of Ped + Bike Use**	●	Possesses a short length of grade exceeding 3.5%.
	2.2 Safe Ped + Bike Connections	●	Provides above average connectivity potential to high quality existing and planned bicycle and pedestrian facilities.
	2.3 Personal Security for Ped + Bikes	●	Avoids creating new paths or ramps that would visually isolate bicyclists and pedestrians.
CONNECTIVITY	**3.1 Street Network Connection**	●	Does not sever or bypass any existing cross streets.
	3.2 Crossing Safety and Convenience	●	Generally maintains the existing roadway geometrics, and does not change any local street classifications.
	3.3 Movable Bridge (Periodic Delay)	○	Consists of a movable bridge.
EQUITY	**4.1 Social Service Impacts**	●	Does not displace or impact access to existing social services (including overnight shelters).
	4.2 Low Income Housing Impacts	●	Does not affect low income housing.
BUILT ENVIRONMENT	**5.1 Visual Impacts to Existing Buildings**	●	Does not permanently block existing building views, light, or access.
	5.2 Commercial + Industrial Impact	●	Does not permanently displace commercial or industrial properties.
	5.3 Low Long-term Housing Impact	●	Does not permanently displace existing long-term housing.
	5.4 Park + Recreation Impact	●	Has an average amount of parks displacement, and avoids impacts to the North Park blocks and the Waterfront Park walkway.
	5.5 Historic Structures + District Impacts	●	Does not impact National Register historic districts or resources, other than the bridge.
FINANCIAL	**6.1 Capital Cost**	●	Falls within the second lowest cost tier (between $800M and $900M).
	6.2 Long-term Maintenance	○	Possesses a high long-term maintenance cost.

LEGEND

● = High Score ◒ = Medium Score ○ = Low Score

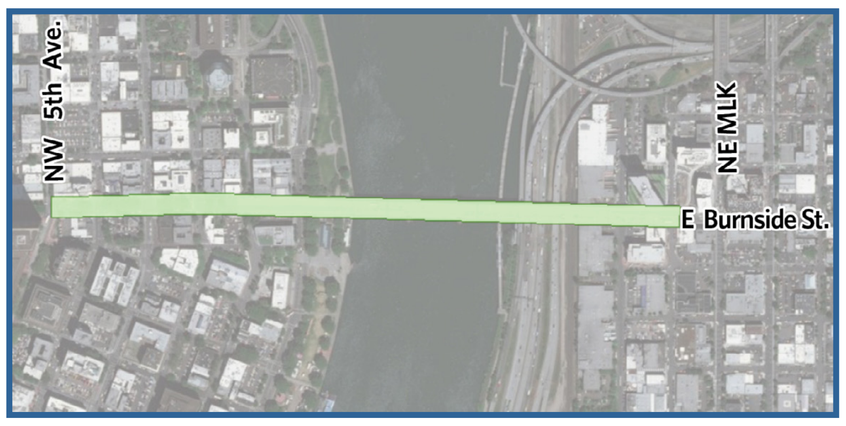
A more detailed analysis can be found in the Earthquake Ready Burnside Bridge Feasibility Report - Draft September 2018, Appendix D

Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

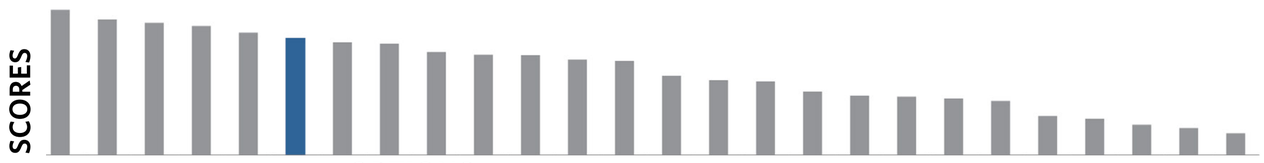
Replacement: Fixed Bridge

BETTER - SAFER - CONNECTED



Description: A new fixed bridge at about the same location as the current bridge and up to a 97' vertical clearance for ships. It doesn't open, but is tall enough to allow ships to pass without halting traffic. The west landing touches down about 3 blocks further west than the current bridge, near 5th Avenue. **Recommendation:** Advance option into NEPA Phase.

TOTAL SCORE 74%



	EVALUATION CRITERIA	SCORE	SCORING RATIONALE
SEISMIC	**1.1 Unreinforced Masonry Risk**	●	Possesses one of the lowest URM risks of the alternatives considered.
	1.2 Disabled Vehicles Risk	●	Consists of a moderately long, single bridge with the largest available width for emergency vehicle use.
NON-MOTORIZED TRANSPORTATION	**2.1 Ease of Ped + Bike Use**	◒	Possesses a moderate length of grade exceeding 3.5%.
	2.2 Safe Ped + Bike Connections	○	Provides below average connectivity potential to high quality existing and planned bicycle and pedestrian facilities.
	2.3 Personal Security for Ped + Bikes	●	Avoids creating new paths or ramps that would visually isolate bicyclists and pedestrians.
CONNECTIVITY	**3.1 Street Network Connection**	◒	Severs two or more existing streets and bypasses up to three existing cross streets.
	3.2 Crossing Safety and Convenience	●	Slightly degrades roadway geometrics versus the existing condition, but does not change any local street classifications.
	3.3 Movable Bridge (Periodic Delay)	●	Consists of a non-movable, fixed bridge.
EQUITY	**4.1 Social Service Impacts**	◒	Impacts access to 1 existing social service provider.
	4.2 Low Income Housing Impacts	●	Does not affect low income housing.
BUILT ENVIRONMENT	**5.1 Visual Impacts to Existing Buildings**	◒	Creates new bridge structure adjacent to 1,500 feet of existing buildings.
	5.2 Commercial + Industrial Impact	●	Permanently displaces/relocates 1 business and 21 employees.
	5.3 Low Long-term Housing Impact	●	Does not permanently displace existing long-term housing.
	5.4 Park + Recreation Impact	○	Has above average displacement of parkland. Avoids impacts to the North Park blocks and the Waterfront Park walkway.
	5.5 Historic Structures + District Impacts	○	Visually obstructs 4 historic resource and adds 3.41 acres of new bridge structure in historic districts.
FINANCIAL	**6.1 Capital Cost**	●	Falls within the second lowest cost tier (between $800M and $900M).
	6.2 Long-term Maintenance	●	Possesses a low long-term maintenance cost.

LEGEND

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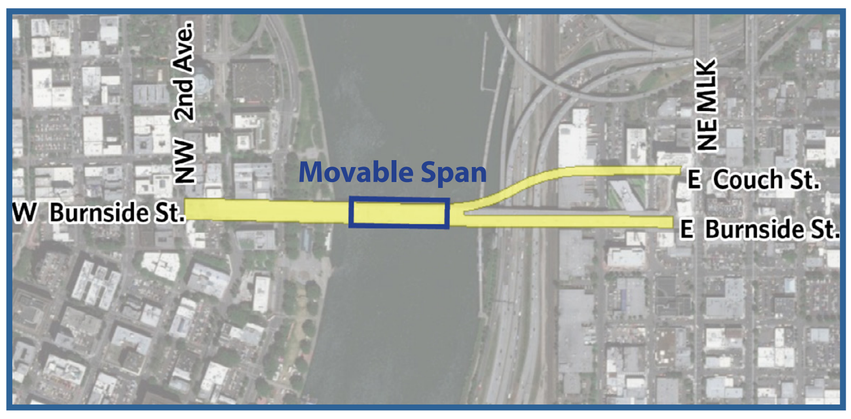
Multnomah County

EARTHQUAKE READY BURNSIDE BRIDGE

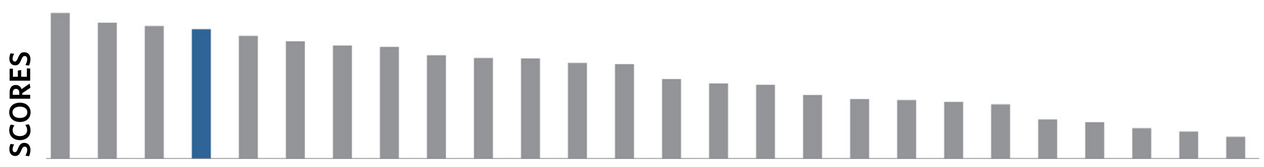
Replacement: Movable Bridge
NE Couch Connection

BETTER - SAFER - CONNECTED



Description: A new movable bridge at about the same height as the current bridge. The east landing splits to connect to NE Couch Street. Westbound traffic enters from NE Couch Street. Eastbound traffic exits to E. Burnside Street. **Recommendation:** Advance option into NEPA Phase.

TOTAL SCORE
82%



	EVALUATION CRITERIA	SCORE	SCORING RATIONALE
SEISMIC	**1.1 Unreinforced Masonry Risk**	●	Possesses one of the lowest URM risks of the alternatives considered.
	1.2 Disabled Vehicles Risk	◒	Consists of a relatively short, but split, bridge which creates some challenges for emergency vehicle use.
NON-MOTORIZED TRANSPORTATION	**2.1 Ease of Ped + Bike Use**	◒	Possesses a moderate length of grade exceeding 3.5%.
	2.2 Safe Ped + Bike Connections	●	Provides above average connectivity potential to high quality existing and planned bicycle and pedestrian facilities.
	2.3 Personal Security for Ped + Bikes	●	Avoids creating new paths or ramps that would visually isolate bicyclists and pedestrians.
CONNECTIVITY	**3.1 Street Network Connection**	●	Does not sever or bypass any existing cross streets.
	3.2 Crossing Safety and Convenience	●	Provides improved roadway geometrics versus the existing condition, and does not change any local street classifications.
	3.3 Movable Bridge (Periodic Delay)	○	Consists of a movable bridge.
EQUITY	**4.1 Social Service Impacts**	●	Does not displace or impact access to existing social services (including overnight shelters).
	4.2 Low Income Housing Impacts	●	Removes potential for 11 future low income housing units.
BUILT ENVIRONMENT	**5.1 Visual Impacts to Existing Buildings**	●	Creates new bridge structure adjacent to 500 feet of existing buildings.
	5.2 Commercial + Industrial Impact	○	Permanently displaces/relocates 7 businesses and 323 employees.
	5.3 Low Long-term Housing Impact	●	Does not permanently displace existing long-term housing.
	5.4 Park + Recreation Impact	●	Has an average amount of parks displacement, and avoids impacts to the North Park blocks and the Waterfront Park walkway.
	5.5 Historic Structures + District Impacts	●	Does not impact National Register historic districts or resources, other than the bridge.
FINANCIAL	**6.1 Capital Cost**	●	Falls within the second lowest cost tier (between $800M and $900M).
	6.2 Long-term Maintenance	●	Possesses a low long-term maintenance cost.

LEGEND

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Multnomah County