



Historic Landmarks Commission - Briefing

Department of Community Services
Transportation Division

November 25, 2024



DESIGN PHASE

- **June 10th, 2024** – Joint Briefing to Historic Landmarks Commission/ Design Commission
 - Project update
 - Range of east approach bridge types
 - Overview of land use application timelines
- **August 19, 2024** – DAR with Historic Landmarks Commission
 - Project Features and Benefits
 - Review of Mitigation Commitments
 - Upcoming Land Use Reviews and Type IV Approval Criteria



Agenda

Purpose: More in-depth discussion of historic resource mitigation

Agenda:

- Historic Resource Impacts Requiring Mitigation
- West End Design Progression
- Review of Mitigation Commitments and Consulting Parties Advisory Group Progress
- Historic Resource Protection Commitments
- Discussion Questions

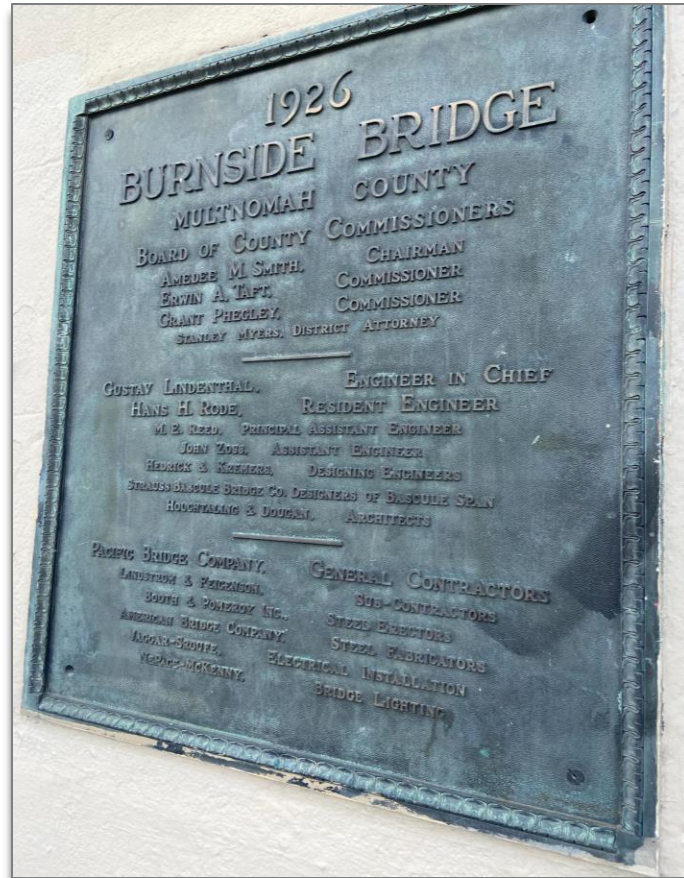




Historic Resource Impacts Requiring Mitigation

Brief Background

Multnomah County placed four bridges on the National Historic Register in 2012 as mitigation for adding a multi-use path on the Morrison Bridge.



HISTORIC AMERICAN ENGINEERING RECORD	
BURNSIDE BRIDGE HAER No. OR-101	
Location:	Spanning the Willamette River at Burnside Street, Portland, Multnomah County, Oregon
	UTM: 10/526080/5040915 Quad: Portland, Oregon
Date opened:	28 May 1926
Structural Type:	Double-leaf Strauss riveted steel bascule with Double-Intersection (lattice) Warren (with sub-vertical) side span deck trusses.
Engineers:	Ira G. Hedrick, Kansas City, and Robert C. Kremers, Portland. Additional engineering by Gustav Lindenthal, New York City, with entire bridge construction supervised by Lindenthal. Bascule design, Joseph B. Strauss Co., Chicago.
Architect:	Houghtaling and Dougan, Portland, Oregon
Prime Contractors:	Pacific Bridge (main span), Lindstrom & Feigenson (approach end ramps), NePage McKenny (lighting).
Subcontractors:	Lindstrom & Feigenson (concrete approaches and concrete encasement of steel girders, east end), Booth & Pomeroy (steel erection), Jaggar Sroufe (bascule span electrical).
Steel Fabricator:	U.S. Steel
Electrical:	
Machinery:	Westinghouse Electric Company
Owner:	County of Multnomah, Portland, Oregon
Present Use:	Vehicular, pedestrian and bicycle traffic
Significance:	Burnside Bridge is one in an ensemble of twelve monumental highway bridges across the lower Willamette River, and one of five Portland span bridges (with Ross Island Bridge, Sellwood Bridge, Lovejoy Viaduct, and the Broadway Bridge) associated with Gustav Lindenthal during the period 1924-1928. The Portland bridges were the last of this master engineer's career, and remain rare examples of Lindenthal.



Historic Resource Impacts

Burnside Bridge is Listed on National Register of Historic Places
Eligibility Criterion:

- **Criterion A** for its statewide significance for its **association with the development of Portland and its transportation network**, especially in contributing to the development of central business district since its construction in 1926
- **Criterion C** as one of the **heaviest bascule bridges** in the United States and as the first such bridge to rely upon a concrete deck surface for its movable span

Subject of a Historic American Engineering Record (HAER)
documentation



Excerpt from 2012 National Register of Historic Places Registration Form

NOTE: The eastern and western limits shown on figure do not reflect the extent of the existing or proposed bridge

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number Documents Page 25

Burnside Bridge

Name of Property

Multnomah Co., OR

County and State

Willamette River Highway Bridges of
Portland, Oregon

Name of multiple listing (if applicable)

Figure 3: Burnside Bridge Boundary Map, Boundary marked with black line

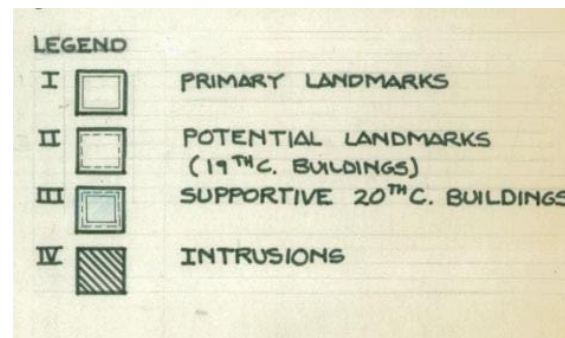


Historic Resource Impacts

Burnside Bridge is not a contributing resource in the NHLD

The Burnside Bridge project was just the first of a wave of large-scale public works projects and accompanying building demolitions that significantly altered the physical and economic fabric of the district.

National Historic Landmark Nomination Form for the Skidmore/Old Town NHLD



Historic Resource Impacts

Previous Bridge Construction Impacts:

- Burnside Bridge construction truncated and rebuilt the southern façades of the Skidmore Block and Willamette Tent and Awning Building and the approach span was physically attached to adjacent buildings



Tent and Awning Co Building façade removal
Steve Dotterer Collection

Example of Project Mitigation Through Design:

- The project will separate the bridge and approach span from adjacent buildings
- Separation would enhance the ability of the White Stag Block to survive a major earthquake
- Separation would increase visibility of the ground-level façade of the Skidmore Block, which has been obscured under the existing bridge approach span since 1926





West End Design Progression

West End Project Elements



Southside



Northside

- Multnomah County wants to build and maintain a structure that is accessible for all people, regardless of how they get around.
- The stairs that are in place now do not accomplish that, so the County is removing them and upgrading existing sidewalks to be ADA accessible.
- New or improved ADA-compliant sidewalks will connect to nearby transit facilities, creating safer, more comfortable access for people with disabilities.



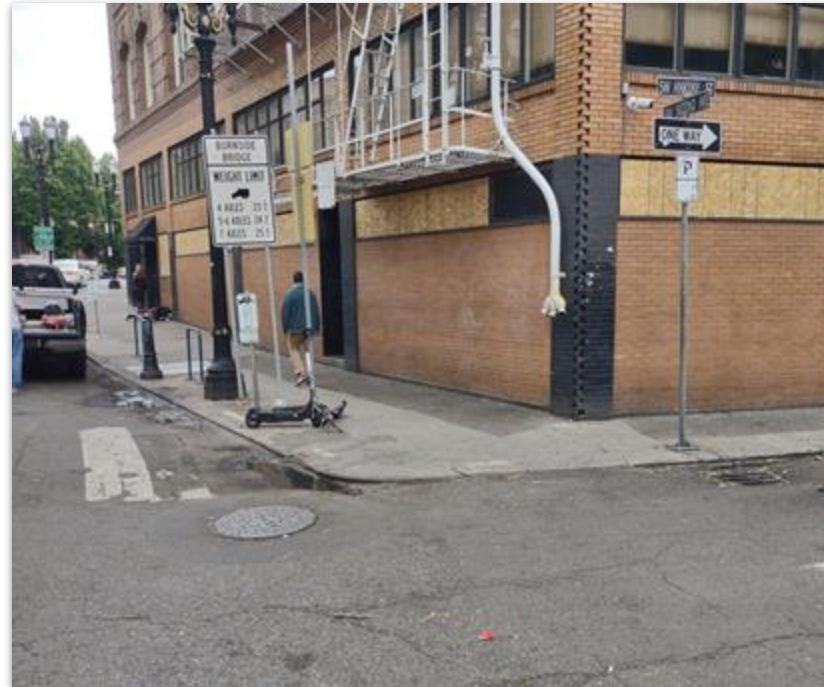
SIDEWALK & INTERSECTION IMPROVEMENTS



- Upgrade existing sidewalks around the block and to adjacent transit stops to ADA standards
- Full rebuild of intersection at West 2nd Avenue and Burnside
- Add crosswalk where none exists today

West End Project Elements

EXISTING DETERIORATING SIDEWALKS





Design Concept

(details not final)





Design Concept

(details not final)





Design Concept

(details not final)





© 2024 Google

NO
TURNS

NY ST

Naito Pkwy

FOR
PEDESTRIANS

Design Concept

(details not final)



The background is a blue-tinted photograph of a cityscape. In the foreground, a large bridge with a complex steel truss structure spans across a body of water. The city buildings and hills are visible in the background, all rendered in a monochromatic blue color. The text is centered over this image.

Review of Mitigation Commitments



Programmatic Agreement

PA Development

- Several years of collaboration with Consulting Parties
- Occurred in tandem with NEPA environmental review process
- Discussed lots of mitigation approaches and ideas
- Focused on meeting Section 106 requirements to mitigate for the adverse effect – Loss of the Historic Bridge and protect other existing resources
- Developed novel approach to archaeological resource identification, monitoring, and treatment



Consulting Parties

- National Park Service (NPS)
- Architectural Heritage Center
- Columbia River Inter-Tribal Fish Commission
- HistoricBridges.org
- Oregon Black Pioneers
- Oregon Historical Society
- Japanese American History Museum
- Restore Oregon
- Willamette Light Brigade
- Historic Bridge Foundation
- Gresham Coalition of Neighborhoods
- Buckman Neighborhood Association
- Central Eastside Industrial Council
- Edward Wortman & Sharon Wood Wortman
- John Czarnecki
- John Weir
- Confederated Tribes of the Grand Ronde Community of Oregon
- Confederated Tribes of Siletz Indians
- Confederated Tribes of the Warm Springs Reservation of Oregon
- Confederated Tribes of the Umatilla Reservation
- Confederated Tribes and Bands of the Yakama Nation
- Nez Perce Tribe
- Cowlitz Indian Tribe





Programmatic Agreement

Signatories

- Federal Highway Administration
- Oregon State Historic Preservation Office
- Oregon Department of Transportation
- Multnomah County
- Advisory Council on Historic Preservation
- Concurring: National Park Service

Key Findings: No adverse effect on any historic buildings

Purpose

- **Identifies** mitigation of adverse effects to the Burnside Bridge
- **Defines** an Archeological Identification, Monitoring, and Treatment Plan
- **Defines** minimization efforts for construction vibration
- **Identifies** stipulations for the protection and treatment of historic resources during construction





Consulting Parties Advisory Group

Purpose:

To advise the project on the implementation of mitigation commitments identified in the Programmatic Agreements (PA Section V.6)

Progress:

- Met approximately monthly since May 2024
- Discussed and provided guidance for:
 - Themes and requirements for the Interpretive Displays
 - Items to salvage and potential ideas for reuse
 - Specifications and needs for the 3-D Scan
- Created Task Assumptions documenting the results of this work to be used for design and implementation of the mitigation



Schedule

	2024				2025				2026				2027				2028				2029				2030				2031			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Salvage and Reuse																																
New Bridge Components in NHL																																
Interpretive Displays																																
3D Scan																																
Video Documentation																																
Documentation																																
Archival Records																																
Publication																																
3D Model																																
Public Event																																
Wikipedia Entry																																
OR Encyclopedia Entry																																
Book Update																																

Planning
Procurement
Implementation



Advisory Group Work Plan

**May 2024 -
November 2024**

- Design and the NHL District
- Salvage and Reuse
- Interpretive Displays
- 3-D Scanning

**April 2025 -
February 2026**

- Video Documentation
- 3-D Model
- Documentation (HAER)
- Archival Records
- Publication
- Public Event

**March 2027 -
April 2028**

- Book Update
- Wikipedia Entry
- Oregon Encyclopedia Entry



Advisory Group - Work to Date



Salvage and Reuse

- Exploring options to salvage and reuse components of the current Burnside Bridge (examples: railings, mechanical components, etc.).



Section 106 Mitigation

Salvage Feasibility

- Explored level of effort required and risk of damage to potential salvage components

Potential Salvage Components					Level of Effort	Risk of Damage
Very Low	Low	Moderate	High	Very High	Infeasible	
1 - Operator Tower						
Entire Operator Tower (as a whole)						
Red Terracotta Roof (Terracotta Tile Shingles over Steel Frame with Concrete Slab)						
Green Architectural Operators Quarters (Glass Windows and TerraCotta Tiling)						
Beige Architectural Tower (Cement Stucco over Terra Cotta Walls)						
Walking balcony						
2 - Metal Bridge Railing						
3 - Concrete Bridge Railing						
Individual balustrades						
Balustrade panel						
Transition units						
4 - Steel Structural Components						
Individual rivets / bolts						
Truss portions (at joints)						
5 - Historic Name Plate						
6 - Mechanical Components						
Motors and gears (i.e., machinery housed in mechanical room)						
Interior trunnion tower						
Pinion rack						
7 - Douglas Fir Piling						
Piling from starling						
Piling from below foundations						



Section 106 Mitigation

Operator Tower



Terracotta Roof

Operators Quarters

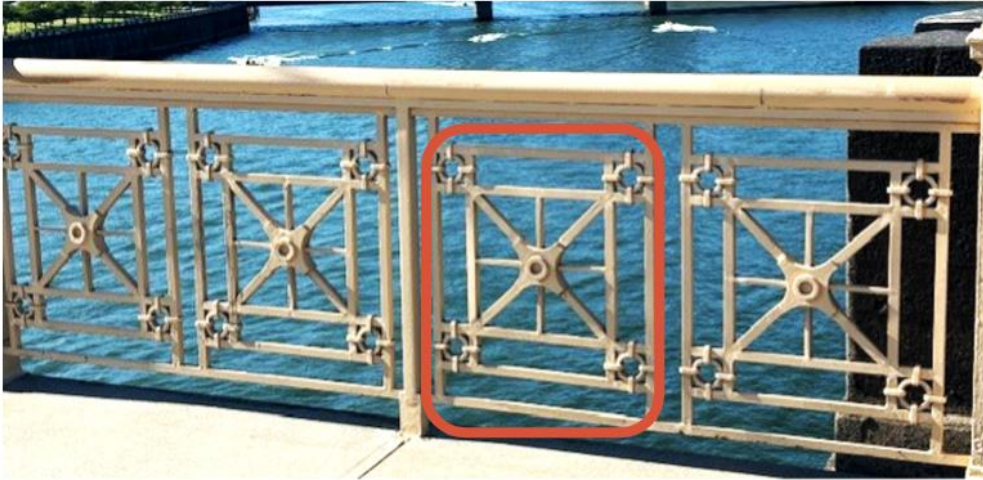
Tower

Walking Balcony



Section 106 Mitigation

Metal Bridge Railings



Concrete Bridge Railings



Salvage Task Assumptions

- Identifies working assumptions for what items will be salvaged including:
 - General removal and handling assumptions
 - Item and number of each to be salvaged



Potential Salvage Components					Level of Effort	Risk of Damage	Proposed
Very Low	Low	Moderate	High	Very High	Infeasible		
1 - Operator Tower							
Entire Operator Tower (as a whole)							Not Likely
Red Terracotta Roof (Terracotta Tile Shingles over Steel Frame with Concrete Slab)							Yes
Green Architectural Operators Quarters (Glass Windows and Terra Cotta Tiling)							Yes
Beige Architectural Tower (Cement Stucco over Terra Cotta Walls)							Yes
Walking balcony							Yes
2 - Metal Bridge Railing							
**Post to post railing panels							Yes (4)
3 - Concrete Bridge Railing							
Individual balusters							Yes (32)
Balustrade panel							Yes
Transition units							No
4 - Steel Structural Components							
Individual rivets / bolts							Yes (200)
Truss portions (at joints)							No
5 - Historic Name Plate							
							Yes
6 - Mechanical Components							
Motors and gears (i.e., machinery housed in mechanical room) **All gear assemblages and pinion gears							Yes
Interior trunnion tower							No
Pinion rack							No
7 - Douglas Fir Piling							
Piling from starling							No
Piling from below foundations							No

Interpretive Displays

- Three displays (min) to be located on the bridge, focusing on the Burnside Bridge history and significance including social and civic importance.



Interpretive Displays

Theme #1: Before the Burnside Bridge

Possible topics under this theme:

- Precontact: how Indigenous peoples used the Willamette River before non-Indigenous peoples arrived.
- Postcontact: how Indigenous and non-Indigenous peoples used the Willamette River before the Burnside Bridge was built.
- Postcontact: why a bridge at this location was needed after non-Indigenous peoples founded Portland and the city expanded.



1841 approximate location of the Burnside Bridge indicated.
Source: Wilkes 1858:Sheet No. 7



Interpretive Displays

Theme #2: History of the Burnside Bridge

Possible topics under this theme:

- First Burnside Bridge at this location and why it was replaced.
- Design and construction of the second Burnside Bridge.
- Designer of the second Burnside Bridge.
- Bascule operation of the second Burnside Bridge: why it opens and how it opens.
- Why the second Burnside Bridge is such a significant and notable work of engineering.



Photo taken from waterfront.

Source: Portland Archives, 1926



Interpretive Displays

Theme #3: Social Importance of the Burnside Bridge

Possible topics under this theme:

- Automobiles, Buses, and Streetcars: Crossing the Burnside Bridge, 1924 to 2027.
- Events: Rose Parade, protests, and demonstrations.
- Burnside Bridge in art and photography.
- Burnside Bridge in popular culture and public memory.
- Construction and use of the Burnside Skatepark
- Continual use of the Willamette River by Indigenous peoples as a fishery.



Portland Protest #2, June 2, 2020
Source: Andrew Wallner



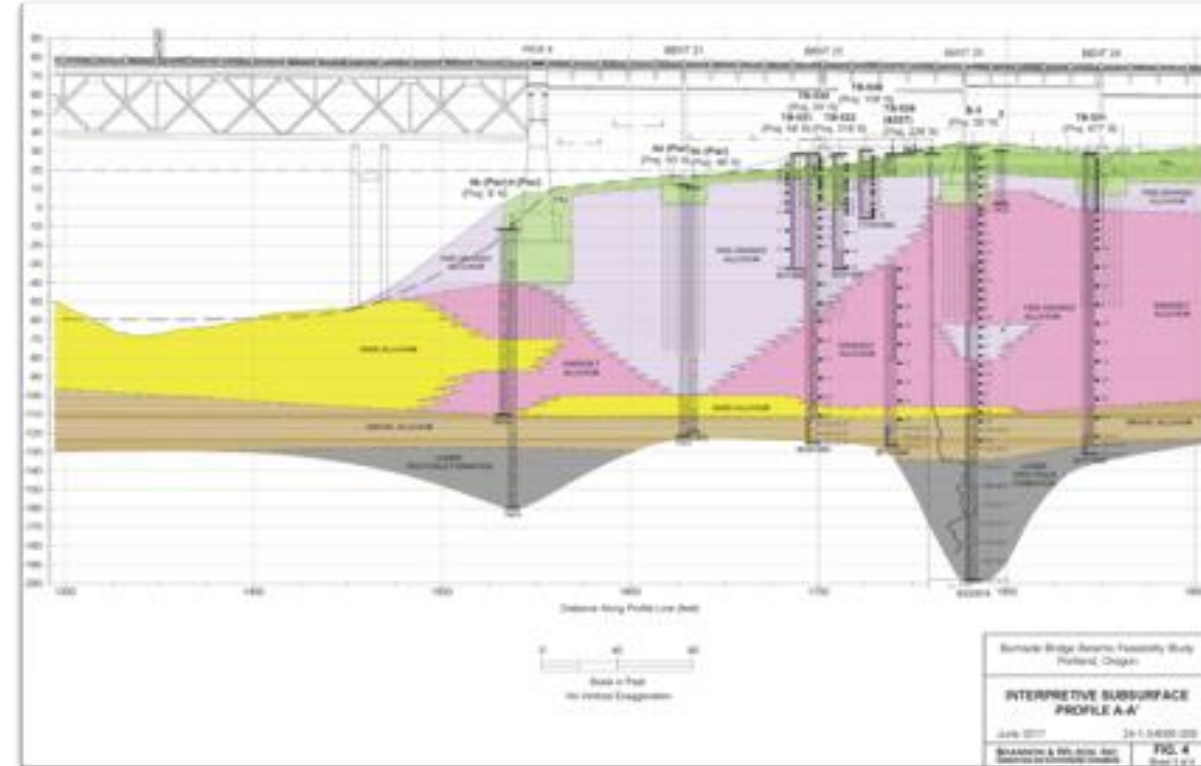
Section 106 Mitigation

Interpretive Displays

Theme #4: Geology and Seismic

Possible topics under this theme:

- Seismic fault lines in the region
- Precontact seismic events from geologic and Indigenous peoples' perspectives.
- Postcontact seismic events since the arrival of non-Indigenous peoples.
- Soil conditions in the vicinity of the Burnside Bridge.
- Why the replacement Burnside Bridge must be seismically resilient.



Soils under Burnside Bridge
Source: Shannon & Wilson, Inc.



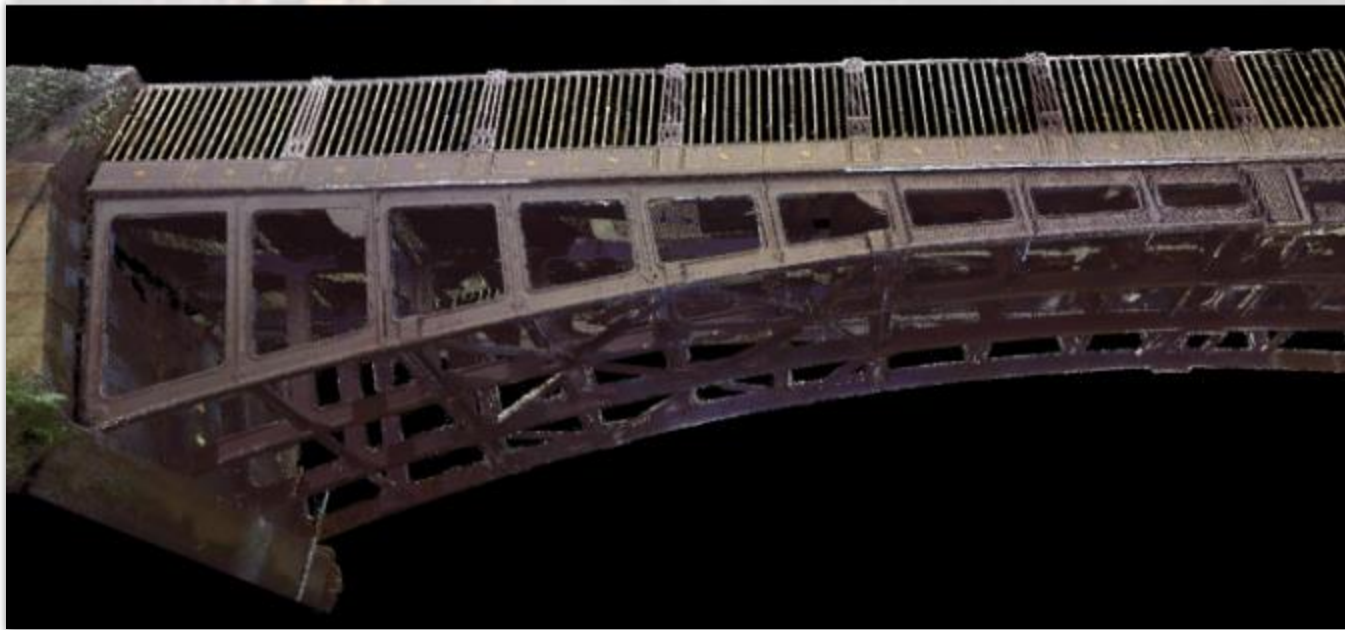
Interpretive Display Task Assumptions

- Identifies tasks a contractor will be responsible for including:
 - Number and size (potentially 8 panels)
 - Content
 - Location
 - Durability
- The content of at least one of the interpretive panels should include elements related to Indigenous peoples, based on those identified in the themes above.
- Including elements related to Indigenous peoples within all of the panels when related to a panel's theme is encouraged.
- The content of at least six of the interpretive panels should include elements identified in Themes #1 - #3 to comply with the specifications of the Section 106 Programmatic Agreement, Section II.2.v.



Three-Dimensional Scanning

- A three-dimensional scan will be made available to the public.



<https://www.geoterra.co.uk/>

Oregon State researchers work to preserve the past with 3D mapping of Silver Falls Lodge



By Kristian Foden-Vencil (OPB)
May 4, 2024 6 a.m. Updated: May 13, 2024 4:21 p.m.



OSU student and staff fly a 3D mapping drone at Silver Falls State Park, April 24, 2024.
Kristian Foden-Vencil / OPB



3-D Scan Task Assumptions

Scan Content

- The entirety of the Burnside Bridge will be scanned including the approaches.
- The top, bottom, and interior areas of the bridge will be scanned:
 - Mechanical rooms, counterweight pits, operator towers, walking balcony, and all railings.
- The scan will capture the bridge in the open and closed positions.

Scan Specifications

- Captured in true color and will have a RGB color designation for the X, Y, Z coordinates.
- Registered into a common coordinate system and will be exported for use in a common software package.
- Include a 3-D model.
- May include an animation of opening and closing.

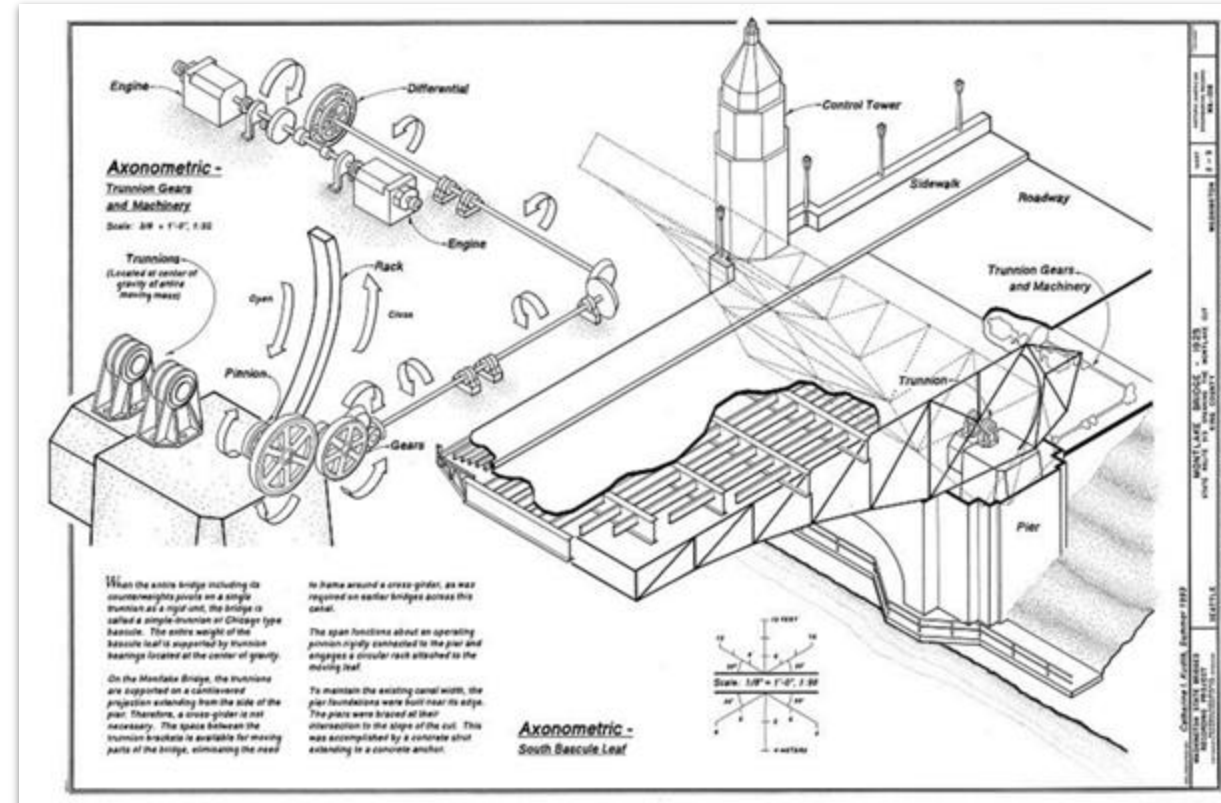


Advisory Group - Next Up



Generate HAER Documentation

- Historic American Engineering Record (HAER) documentation details and requirements will be prescribed by National Park Service.
- Received NPS Stipulation letter in June 2024

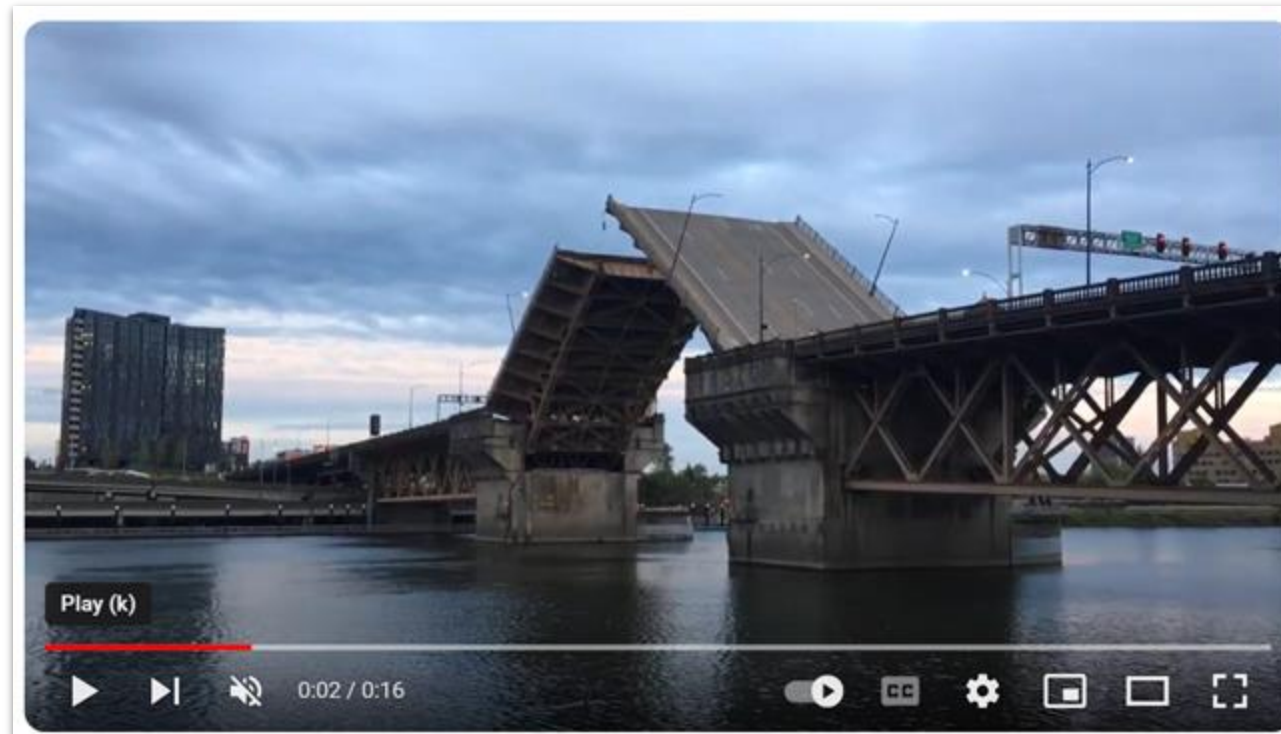


Example of HAER style drawings
Source: Courtesy Library of Congress



Video Documentation

- Four videos (min) showing opening and closing operations, interior of the bridge cab and processes, internal bridge machinery in operation, and demolition and construction.



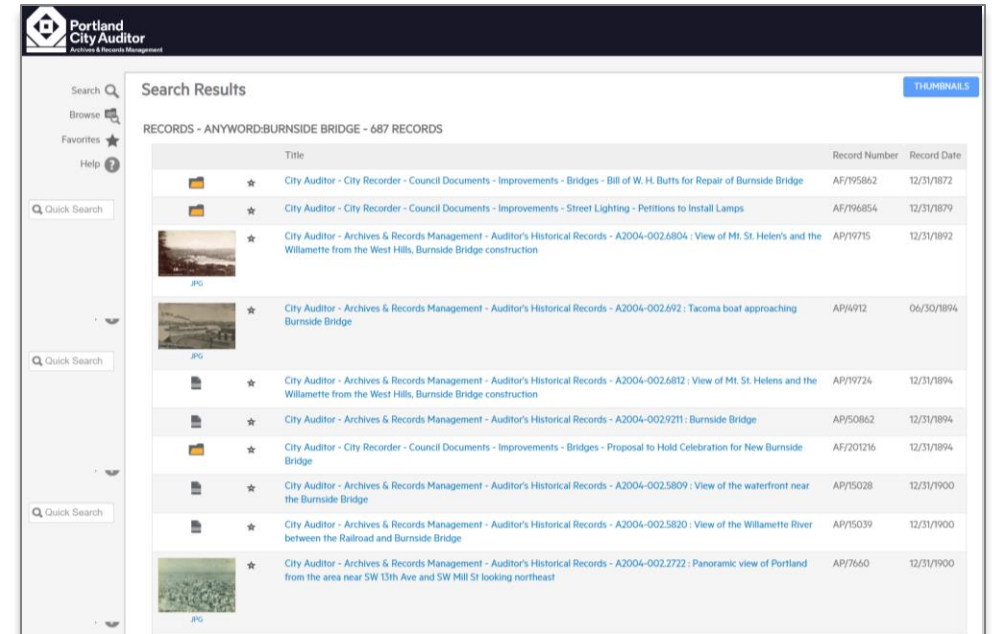
3D Scale Model

- The model will be at a scale of 1:500, designed for public display, and fabricated of durable materials.



Digitize Archival Records

- Identify unarchived manuscripts, photographs, plans etc.
- Repositories Includes:
 - Oregon Historical Society
 - Multnomah County Central Library
 - Portland Archives and Records
 - Multnomah County Archives
 - Oregon State Archives
 - ODOT Library
 - University of Oregon Libraries
 - Oregon State University Libraries
- Digitize and make new submissions to archive records for the Burnside Bridge
- Make available to the public through existing online portals



Portland City Auditor
Archives & Records Management

Search Results

RECORDS - ANYWORD:BURNSIDE BRIDGE - 687 RECORDS

Title	Record Number	Record Date
City Auditor - City Recorder - Council Documents - Improvements - Bridges - Bill of W. H. Butts for Repair of Burnside Bridge	AF/195862	12/31/1872
City Auditor - City Recorder - Council Documents - Improvements - Street Lighting - Petitions to Install Lamps	AF/196854	12/31/1879
City Auditor - Archives & Records Management - Auditor's Historical Records - A2004-002.6804 : View of Mt. St. Helen's and the Willamette from the West Hills, Burnside Bridge construction	AP/19715	12/31/1892
City Auditor - Archives & Records Management - Auditor's Historical Records - A2004-002.692 : Tacoma boat approaching Burnside Bridge	AP/19712	06/30/1894
City Auditor - Archives & Records Management - Auditor's Historical Records - A2004-002.6812 : View of Mt. St. Helens and the Willamette from the West Hills, Burnside Bridge construction	AP/19724	12/31/1894
City Auditor - Archives & Records Management - Auditor's Historical Records - A2004-002.9211 : Burnside Bridge	AP/50862	12/31/1894
City Auditor - City Recorder - Council Documents - Improvements - Bridges - Proposal to Hold Celebration for New Burnside Bridge	AF/201216	12/31/1894
City Auditor - Archives & Records Management - Auditor's Historical Records - A2004-002.5809 : View of the waterfront near the Burnside Bridge	AP/15028	12/31/1900
City Auditor - Archives & Records Management - Auditor's Historical Records - A2004-002.5820 : View of the Willamette River between the Railroad and Burnside Bridge	AP/15039	12/31/1900
City Auditor - Archives & Records Management - Auditor's Historical Records - A2004-002.2722 : Panoramic view of Portland from the area near SW 13th Ave and SW Mill St looking northeast	AP/7660	12/31/1900

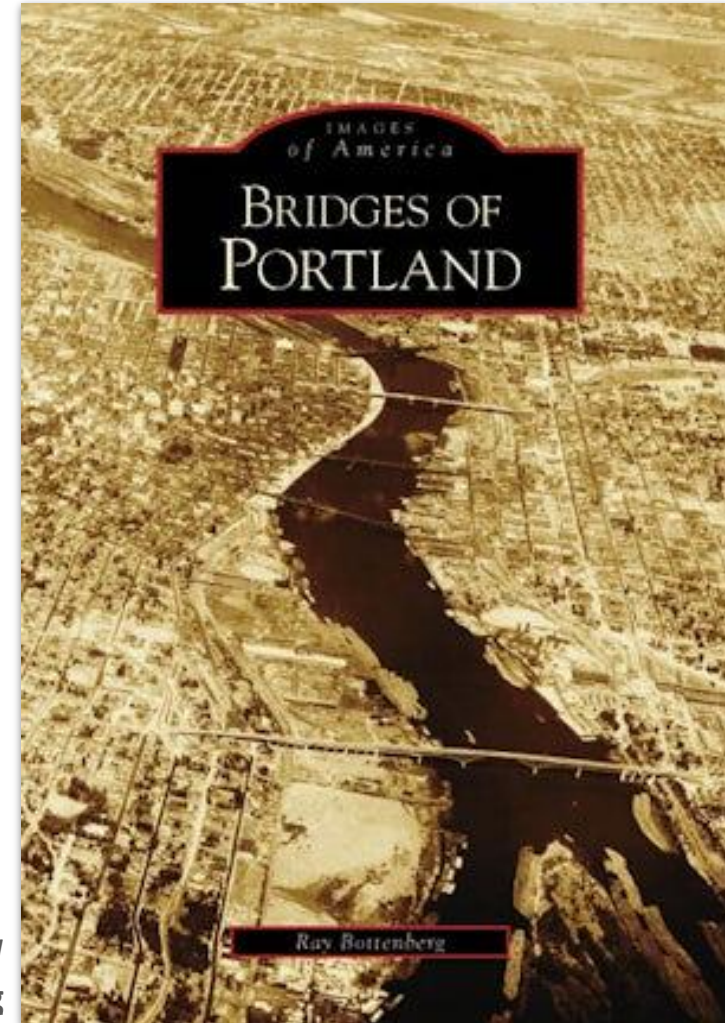
<https://www.portland.gov/archives/archives>



Scholarly Publication

- Scholarly publication including history of lower Willamette River crossings addressing:
 - Precontact crossings
 - Ferries and bridges
 - Navigation below Willamette Falls
 - Historical themes and major chronological periods
 - Civic and social importance
- Minimum of 150 pages
- Will Include:
 - contemporary photographs and drawings
 - historical images
 - Oral histories (tribal members, engineers, bridge operators, others)
 - Historic maps

Bridges of Portland
By Ray Bottenberg



Section 106 Mitigation

Example Publication

- Oklahoma DOT
- Removal of historic bridge
- Includes:
 - Geography and hydrology
 - Early history
 - Early crossings
 - Waterway transportation
 - Development phases
 - Highway and rail transportation
- 150 pages









http://www.odotculturalresources.info/uploads/6/6/6/2/6662788/bridging_the_mighty_red_singles_for_posting_hr.pdf



Host Public Event Prior to Demolition

- A half-day event for the public will celebrate and acknowledge the history of the existing bridge.

Multnomah County

Search  Services  Departments  Elected  More  Select Lang Connect 

Multnomah County


A stroll down memory lane as neighbors bid farewell to their bridge

Change, even if it means a better future, can make a person think about the past.

And so it was Thursday night as neighbors, friends and strangers crossed the 90-year-old [Sellwood Bridge](#) for the last time.

Under an expanse of stars on the cloudless February night, parents pushed strollers. Others kept a watchful eye on pajama-clad children teetering about with glow sticks looped around their necks.

Poodles and collies, shepherds and St. Bernards pulled their owners up the arching expanse. Frogs croaked out a low chorus from the dark banks below. In the distance a bagpiper played.



Advisory Group - 2027 - 2028



Update Wikipedia Entry

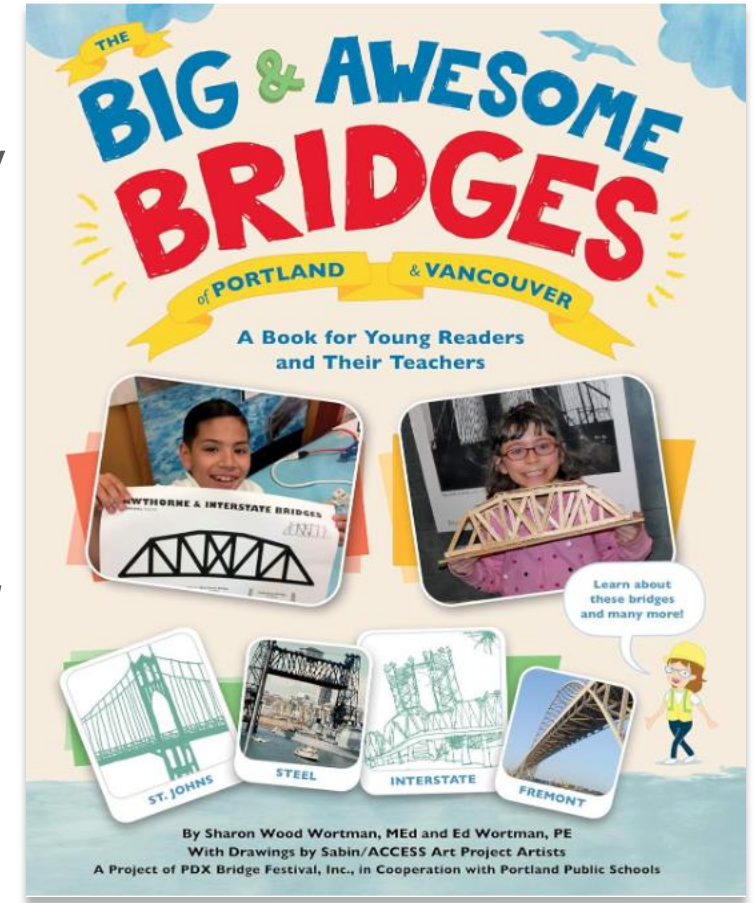
- Update the Wikipedia entry to include the broader social and cultural context, corrected links, and link to the Multnomah County Burnside Bridge website.

Update Oregon Encyclopedia Entry

- Develop an entry for the online Oregon Encyclopedia including the role of the Burnside Bridge and its significance.

Update *The Big and Awesome Bridges of Portland and Vancouver* book

- Develop an online pamphlet focusing on the replacement of the Burnside Bridge compatible with the format of *The Big and Awesome Bridges of Portland and Vancouver* book to be available to the public and educators.





Historic Resource Protection Commitments

Programmatic Agreement

PA Section IV. Minimization of Construction Vibration Damage

- Includes list of identified unreinforced masonry historic buildings.
- If vibration is projected to exceed thresholds, the project will:
 - Conduct pre- and post-construction conditions assessments
 - Stop work if vibration exceeds limits
- If buildings are affected, the project will:
 - Prepare a Treatment Plan meeting *Secretary of the Interior's Standards for the Treatment of Historic Properties* (reviewed by SHPO and NPS)



Programmatic Agreement

PA Attachment 2 - Identification, Protection, and Treatment of Built Historic Resources During Reconstruction of the Burnside Bridge

- Includes list of identified historic properties
- Guidelines for construction within National Historic Landmark
- Must meet *Secretary of the Interior's Standards for Rehabilitation*
- Guidelines for new Bridge within the National Historic Landmark
 - Views, materials, and color, etc.
- Guidelines to protect historic features/buildings
 - Contractor will prepare a Protection Plan (reviewed by SHPO and NPS)
 - Use hand tools to separate bridge from buildings and sidewalks



The background is a blue-tinted photograph of a cityscape. In the foreground, a large bridge with multiple arches spans across a river. The city buildings and hills are visible in the background, all rendered in a monochromatic blue color. The text 'Discussion Questions' is centered over the bridge and river area.

Discussion Questions

An aerial photograph of a city bridge over a river, with a city skyline in the background. The image is overlaid with a semi-transparent blue filter. The text "Thank you" is centered in white.

Thank you