United States Department of the Interior
National Park Service

National Register of Historic Places
Date listed 11-14-2012
NRIS No. 12000930
Oregon SHPO

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Broadway Bridge

other names/site number

2. Location

street & number Spanning the Willamette River at RM 11.7 ☐ not for publication

city or town Portland ☐ vicinity

state Oregon code OR county Multnomah code 051 zip code 97209

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this **X** nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property **X** meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

X national **X statewide** ___ **local**

[signature] 9.20.12

Signature of certifying official/Title: Deputy State Historic Preservation Officer Date

Oregon State Historic Preservation Office
State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official Date

Title State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:)

Signature of the Keeper Date of Action

Broadway Bridge
Name of Property

Multnomah Co., OR
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

- [ ] Private
- [X] public – Local
- [ ] public – State
- [ ] public – Federal

Category of Property
(Check only **one** box.)

- [ ] building(s)
- [ ] district
- [ ] site
- [X] structure
- [ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		district
		site
1		structure
		object
1	0	**Total**

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

Willamette River Highway Bridges of Portland, Oregon

Number of contributing resources previously listed in the National Register

None

6. Function or Use

Historic Functions
(Enter categories from instructions.)

TRANSPORTATION: Road Related, Bridge

Current Functions
(Enter categories from instructions.)

TRANSPORTATION: Road Related, Bridge

7. Description

Architectural Classification
(Enter categories from instructions.)

NO STYLE

Materials
(Enter categories from instructions.)

foundation: CONCRETE
walls: N/A
roof: N/A
other: STEEL; STONE

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

The Broadway Bridge opened to traffic in April 1913, spans the Willamette River in downtown Portland, Oregon, at River Mile 11.7, just downstream from the Steel Bridge, within the core of the central commercial district of the city. Comprised of six steel through-trusses, the center span is a 278-foot-long, double-leaf Rall bascule and the overall length of the structure is 1,613 feet. The Broadway Bridge was designed by Ralph Modjeski, with the operable, Rall span designed under patent by the Strobel Steel Construction Company of Chicago, Illinois. The steel superstructure of the bridge was built by the Pennsylvania Steel Company. Union Bridge and Construction Company built the masonry substructure. The bridge is owned and maintained by Multnomah County.

Narrative Description

The Broadway Bridge has been well documented in recent years, with most studies related to proposed modifications and upgrades to maintain the structure as a viable element of the Portland-area transportation system. In 1999, Judith A. McGaw documented the Broadway Bridge for the Historic American Engineering Record to augment an earlier submittal. That document, HAER project number OR-22 as amended, serves as the primary basis for the following information, much of which is taken verbatim from that exhaustively researched narrative.[1]

Setting

The Broadway Bridge spans the Willamette at River Mile 11.7, just downstream of the Steel Bridge, north of the traditional downtown business core of Portland, Oregon. The western approach to the bridge connects NW Broadway and Hoyt streets across the river to approaches that lead to N Broadway and Larrabee streets on the east side. The Broadway Bridge was the first direct vehicular crossing built to the north of the Morrison Bridge, Portland's first trans-Willamette span, and as such provided substantially increased connectivity between the northwest and northeast quadrants of the city.[2]

Design

Describing the Broadway Bridge, or any similar, movable structure, is a complex task that is not easily encapsulated into a typical narrative. While certain elements of the bridge — the piers, the truss, deck, and railings — are fairly easily described by material, size, and fabrication, the workings of the lift mechanism itself incorporate a massive, complex technology that relies upon multiple elements working in concert to both bear and move a huge and incredibly heavy structure on an operator's command. And then of course the mechanism must reverse the process and return the elements to the original configuration, cycling back and forth between the open and closed stages, again and again as river traffic warrants. As a result, this is not intended as a fully detailed description of the Broadway Bridge or of the Rall bascule mechanism that is at its heart, but rather as a description of the bridge's major structural and operational components, all based on the far more detailed description found in the existing HAER narrative.

[1] Judith A. McGaw. *Broadway Bridge–Addendum to Historic American Engineering Record OR-22*. (HAER/ODOT in cooperation with Multnomah County, 1999).

[2] The original Steel Bridge built in 1888, also north of the Morrison, was rail-only and not accessible to autos or private transportation.

A Rall bascule operates slightly differently than does a typical bascule bridge, which most people envision as something of a hinged deck that pivots upward on a fixed point, to create an opening or draw. All drawbridges rely upon heavy counterweights to balance the weight of the movable leaf. Most bascule bridges have the counterweights located below the road bed. "With a Rall type bascule, the counterweights are located above the roadway and much of the machinery is located in sheds, also above the roadway."[3] More importantly, in terms of differentiating the Rall type from other bascules, in a Rall, "…each leaf and its counterweight rotate back and forth on giant bull wheels, to allow maximum river clearance."[4] Simply put, this means that in a Rall, as the leaf is moving upwards toward near vertical, it also is moving backward, on the wheels, away from the center, an effect that creates a greater draw opening. That motion, up and out, serves as the primary difference between the Rall and other bascule designs — including the Strauss and Scherzer versions.

The fixed elements of the Broadway Bridge include the granite-faced, concrete piers (numbers five and six) that carry the pivoting bascule leaves. The other piers are of considerably simpler design, consisting of a steel framework that rises from a poured concrete base. The main span, the bascule, is 278 feet long with four fixed Pennsylvania-Pettit truss spans, starting at the west: 270 feet, 286 feet, and 297 feet long and then, east of the bascule, 297 feet long. Finally there is a single Pratt Truss, at the east end of the bridge, that is 185 feet long.[5]

Combined, the six fixed spans and the bascule span yield a total bridge length of 1,613 feet. Bridge height over the river varies between 65 feet at high water and 93 feet at low water. Although outside the nominated boundary, the approach spans that connect the Broadway Bridge to the Portland street grid expand the total structural length of the facility to more than 3,000 feet.

Modifications

Subsequent to the completion and formal dedication of the bridge in April 1913, the major modification to the Broadway Bridge took place in 1927 under the direction of Gustav Lindenthal. Lindenthal, a noted bridge engineer from New York City, best known in Portland for his work on the Burnside, Ross Island, and Sellwood bridges, had planned to design a new "North Bridge" for Portland, to relieve traffic further downstream from the Broadway Bridge, but funding for that span was defeated by voters in 1926. Instead Lindenthal was asked to make more cost-effective modifications to the Broadway, so as to reduce congestion in this part of town by increasing the Broadway Bridge's ability to handle heavy traffic. Working with a limited ($750,000) budget, Lindenthal chose to replace the original wooden decking on all of the bridge spans but the bascule with concrete. The bascule span was simply re-surfaced with a new timber deck. Due to the heavy-duty construction of the original Broadway design, the last of Portland's bridges that was intended to carry street-car loads, that change — and the significant additional weight of a concrete deck — did not require any structural modification to the bridge. As Lindenthal's resident engineer noted in the 1926 plans, the live load requirements of early 20th century bridges were impressive; they were heavier than those used for the three new Portland bridges whose completion Lindenthal had just supervised.

The original configuration of the approaches to the Broadway Bridge, particularly the eastern approaches, had been controversial, actually delaying the bridge's opening by several months as legal issues between the city and the railroad were resolved. Lindenthal's comprehensive proposal for redesigning the Broadway's approach spans failed for lack of funding and so his solution only partially responded to the growing traffic on the bridge. Lindenthal's most visible alteration was his addition of a new ramp, the Lovejoy viaduct, which carried traffic to and from an additional west-side intersection at Tenth and Lovejoy streets and eased traffic access to the bridge. To permit this modification, the westernmost Pratt-truss span was removed and replaced with a box girder span, creating a wider roadway to handle the merging traffic of the two ramps. Lindenthal also widened

[3] See http://www.sunschools.org, visited 7-Sept-2010.
[4] See http://www2.co.multnomah.or.us, visited 7-Sept-2010.
[5] A sixth truss, a 124-foot-long Pratt, originally stood at the western end of the bridge. This was removed in 1926, to accommodate construction of the Lovejoy Approach ramp. See Modifications, below.

the retaining wall section at the entrance of the original Broadway ramp to smooth traffic there. All the spans except the bascule also got new bridge railings. New light fixtures were added and new fire protection devices were installed. The City of Portland demolished the new Lovejoy viaduct, the major component of this entire redesigned system, during the 1999 HAER–ODOT study of Portland's bridges.

The 1927 timber decking of the bascule span was again replaced in 1948, this time with an open steel grate system. Over the subsequent years regular maintenance work has resulted in resurfacing of the fixed spans and sidewalks on a regular basis. Lindenthal's suggestion for a compete reconstruction of the eastern approaches, the concept that failed for lack of funding in 1927, finally occurred in 1951, largely as the result of the construction of the East Side Freeway, today the route of Interstate 5.

Visually, the original paint on the Broadway Bridge was red lead over two primer coats; the color was dark black. The bridge was again repainted black in 1949. In 1963 the bridge color was changed under a new scheme devised to add color and diversity to Portland's many bridges. The Broadway Bridge, abutting the red roof tiles of the Portland's Union station, was to be painted red, with some black elements. The bridge is now standardized as "Broadway Bridge Red" for the majority of the structure.

The Broadway Bridge's electrical system, as might be expected, has been largely replaced and upgraded. New lighting was installed in 1958. In 1961 the original gatehouses and operator's houses were demolished and the steel pedestals that supported them were removed. New operator's houses were built at the northwest and southwest locations. In 1976, because the local utility stopped supplying direct current (DC) electricity, Multnomah County installed silicon rectifiers and related equipment that allowed them to convert AC (alternating current) (AC) into DC, retaining the existing bridge motors. In 1977 a new hydraulic centerlock replaced the original spanlocks, elements of the movable bridge mechanism. Other changes over time have resulted in the upgrade of most of the mechanical system.

In January 2002 the Broadway Bridge was closed while four anchor struts, structural elements that bear the weight of the lift span when it is closed, were replaced along with the replacement of the operating struts. CH2M-Hill served as the consulting engineer for this project, with construction by Hardesty & Hanover.

A major repair project began in February 2003 and was completed in April 2005, during which Multnomah County spent some $26.3 million to install a new reinforced-polymer deck on the lift span, a microsilica concrete overlay on the fixed spans, as well as installing new sidewalks and repainting most of the superstructure. The lift motors were replaced as well, along with an entirely new electrical control system. David Evans & Associates served as the consulting engineers, with Mowat serving as the prime contractor.[6]

Summary

The Broadway Bridge, completed in 1913 and designed by Ralph Modjeski, was built by the Union Bridge and Construction Company, of Kansas City, Missouri, (substructure) and the Pennsylvania Steel Company, of Steelton Pennsylvania. The Rall-type bascule span was designed by Strobel Steel Construction Company of Chicago, Illinois. The bridge, though initially paid for and constructed under the aegis of the City of Portland, has been owned and maintained by Multnomah County since its completion.

Although modified over time, most notably via the replacement of its original decking, the essential character and design of the Broadway Bridge remains substantially intact and as it appeared upon completion in 1913. Changes to the bridge, including railings, approaches, lighting and electrical systems, do not seriously affect its essential character, allowing the Broadway Bridge to substantially convey its original design and effectively relate the associations for which it is significant.

[6] Sharon Wood Wortman. *The Portland Bridge Book*, 3rd Rev. Edition. (Portland, OR: Urban Adventure Press, 2006), 34.

Broadway Bridge
Name of Property

Multnomah Co., OR
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [X] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)

COMMUNITY PLANNING &
DEVELOPMENT
TRANSPORTATION
ENGINEERING

Period of Significance

1913-1973 (Criterion A)
1913 (Criterion C)

Significant Dates

April 22, 1913, Opened

Significant Person
(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Ralph Modjeski, Chicago (Engineer)
Strobel Steel Construction Co., Chicago, (Bascule)
Pennsylvania Steel Co., Steelton, PA
United Bridge & Construction Co., Kansas City, MO

Period of Significance (justification)

The period of significance begins with the completion of the Broadway Bridge in 1913 in response to the increasing need for cross-river transportation and ends in 1973, spanning the entire context for the Multiple Property Document entitled Willamette Highway River Bridges of Portland, Oregon.

Criteria Considerations (explanation, if necessary) N/A

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

The Broadway Bridge, the first bascule or drawbridge to be constructed across the Willamette River in Portland, Oregon, was completed in April 1913. The bridge was designed by noted bridge engineer Ralph Modjeski with a Rall bascule designed by the Strobel Steel Construction Company of Chicago, Illinois. The Broadway Bridge is of statewide significance for its role within Portland's transportation and development history as the first trans-Willamette River bridge to be constructed on an entirely new alignment in the 20th century. Its construction was a response to the increased cross-river traffic north of the traditional downtown, as Portland's population and business center grew in the early part of the 20th century.

The Broadway Bridge is additionally of national significance under Criterion C as one of the few surviving examples of the patented Rall-type bascule, an early alternative to the more popular bascule forms that dominated most movable bridge construction. One of only three Rall bridges still in operation in the United States, the Broadway Bridge is the largest Rall bascule to have ever been built and as such is a key exemplar of that technology.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Nominated under the framework of the Willamette River Highway Bridges Multiple Property Document (MPD) and built within the first temporal period as defined by that document, the Broadway Bridge is of statewide significance under National Register eligibility Criterion A, Community Planning and Development and Transportation, for its association with the development of Portland and its transportation network between its construction in 1913 and the close of the period of significance for the MPD document in 1973. The Broadway Bridge is additionally of national significance under Criterion C, Engineering, as the oldest and largest example of the patented Rall-type bascule movable bridge design and technology known to exist. The period of significance under Criterion C is the date of construction, 1913. The Broadway Bridge meets all the general and the necessary specific registration requirements for listing under the MPD.

Developmental history/additional historic context information (if appropriate)

Bridges in Portland

Portland's first trans-Willamette Bridge, the first Morrison Bridge, was a wooden swing span that was built by private interests in 1887 to connect Portland with the separate, incorporated, city of East Portland. Four years later the two communities, along with Albina, another independent city in what is now North Portland, voted resoundingly to consolidate, forming a united municipality lining both sides of the Willamette River. Six more bridges followed, including vehicular and railroad spans, some of which had to be replaced due to poor construction between 1891 and 1910, when the Hawthorne Bridge was completed, replacing two earlier spans that connected Madison Street on the west, with Hawthorne, on the east, on the same basic alignment.

The important shipping and port traffic on the Willamette made each of the trans-Willamette crossings controversial, and direct and easy vehicular connection competed with the need to maintain an open river channel. The city's earliest spans were uniformly of swing-span design, meaning a portion of the bridge could

rotate on a fixed center pier, turning 90-degrees from its normal cross-river orientation to run parallel with the flow, creating two open channels on either side of the "swing" or pivoting span. Aside from the mechanical issues inherent in the operation of swing spans during this era, the slow speed at which the bridges could be opened or closed proved irksome to both vehicular and river traffic, and the latter was constrained by the comparatively narrow passage afforded on either side of the central pivot point. For the Hawthorne Bridge, completed in 1910, the city chose a new form of movable bridge, a vertical-lift span. When the Oregon Railroad and Navigation Company determined to replace its 1888 Steel Bridge, it too decided to use the vertical-lift technology, as developed and patented by the firm of Waddell & Harrington of Kansas City, Missouri.

Portland's first effort to create another bridge connection across the river, the Broadway Bridge, was to be located in the northern portion of downtown, an area that had long pushed for additional connectivity without success because building and rebuilding on the existing four alignments occupied the city and utilized its limited bonding authority. Finally, in 1908, voters passed funding for the construction of the new bridge and the city hired Ralph Modjeski, a nationally acclaimed bridge engineer who is most associated with railroad spans in the northwest, as its designer.

Ralph Modjeski, Engineer

The Broadway Bridge's engineer, Ralph Modjeski, was based in Chicago, Illinois.[7] Prior to his work on the Broadway Bridge, Modjeski had already designed bridges in the Portland area as the consulting engineer for bridges built for James J. Hill's rail lines. Modjeski was responsible for the design of the two Vancouver–Portland Railroad Bridges that still span the Columbia River. The City of Portland hired Modjeski in April 1908 to examine the possibilities for building a "high bridge" north of the northernmost downtown crossing, the original Steel Bridge (owned by the Oregon Railroad and Navigation Company).[8] He was to report on locations; offer preliminary plans showing alignment, pier location, and general shape; offer cost estimates; and provide a discussion of the available options. He was also asked to assess a tunnel alternative. Modjeski's report, published in 1908, gave a clear sense of its author's preferences but also, given the politics of the situation and Modjeski's own diplomatic recognition of the issues that had long plagued Portland's bridge construction program, wisely recognized that there were legitimate grounds for a variety of options.

Largely dismissing the tunnel option, given the Willamette's sandy soil and the long approaches that would require significant demolition and displacement on both sides of the river, Modjeski reviewed two bridge options — a high bridge, with a 1,000-foot center span, and a bascule bridge. Modjeski's own preference was the bascule, which could be built closer to the city's center than the high bridge. He also believed that the bascule span could be built with sufficient vertical clearance that the number of required openings would be minimal. In essence, Modjeski's proposal sketched the Broadway Bridge; fixed, through-trusses of the Pennsylvania Petit type with a movable span in the center of the river that was inline with the draw of the Steel Bridge, a quarter of a mile upstream.[9]

Modjeski eliminated a swing span, as used on all of Portland's bridges up to that point, from consideration and instead recommended a bascule design. Bascules, also known as drawbridges, were a more modern approach than swing spans, but one that Modjeski judged to be less experimental than a vertical-lift bridge,

[7] Modjeski (1861–1941) was born in Poland and arrived in America in 1883, working first with George S. Morrison, a noted bridge designer who had been responsible for Portland's first Steel Bridge, built in 1888. Modjeski established his own firm in 1893 and quickly developed a reputation based on steel railway bridges. His best known works included the Quebec Bridge over the St. Lawrence and the 1926 Ben Franklin Bridge, a graceful suspension span across the Delaware River that was the longest such bridge in the world upon its completion.

[8] A "high bridge" refers to a fixed, not movable, span that has sufficient clearance above the river to allow for unimpeded ship passage. High bridges, while requiring less maintenance in the long run than do movable spans, require significantly more land to accommodate longer approaches and connections to the surface street system.

[9] In 1908 this was the 1888 Steel Bridge, a swing span, that was itself replaced in 1912 with the double vertical lift span that is also known as the Steel Bridge.

the other possible alternative.[10] To assure sufficient clearance for river traffic, Modjeski proposed a bascule opening of a minimum of 200 feet in width, with steel through-truss fixed spans leading up to the double-leaf opening. Since Modjeski was not a bascule designer, and because bascule technology was rapidly evolving during this period, he left the specific type of bascule open, to be determined later should the city elect to pursue the bascule option.

Modjeski's report, submitted in September 1908, included an offer to supervise the construction of the project. Controversy over the project delayed action on the city's part for over a year, and during that intervening period the city hired Waddell & Harrington to design a new vertical-lift bridge to replace the aging Madison Bridge, the span that became the Hawthorne Bridge. At the same time, the railroad also hired Waddell & Harrington to design its new bridge to replace the Steel Bridge. That new span project, still also known as the Steel Bridge, would become the only independently operated double vertical-lift bridge in the world. For the Broadway site, however, the city stuck with Modjeski and with a bascule, staying true to the original 1908 recommendation.

In June 1909, after a long and typically contentious public debate over its siting and design, Portland voters were asked to support a bond to build a new Broadway Bridge. The *Oregonian* editorialized that,

> A bridge, from the highland of the East Side, say from Broadway or from a street near that locality, carried over the river at a suitable height so as to clear all river traffic but topmasts, and to clear also the railroad yards on the West Side, and lead directly to the West Side center by one street or another to Burnside and Washington, is a necessity. If we are to vote for another bridge…this bridge is the one now most required.[11]

The city's voters, already having supported the Hawthorne span, enthusiastically endorsed the Broadway project too. Political issues ultimately delayed the actual construction of the span for over two years until spring 1912, as issues raised by the Port, the railroad, and the Army Corps of Engineers were addressed and solved, ultimately requiring a ruling of the U.S. Supreme Court (see below). The decision to formally employ Modjeski for the project was made in October 1910, reflecting the city's intent to proceed prior to resolution of those issues; however, the exact timing of the project, and its exact design, was left open.

> Just what type of bascule bridge will be constructed is a matter to be worked out by Mr. Modjeski, but it will be a bascule, instead of a lift draw such as is being built at Madison Street…. The fact that Mayor Simon has chosen an engineer for this great project will be very welcome news to the East Side, in particular, and to the general public, for the movement to build such a bridge met great favor, the bond issue being carried by a large majority last June.[12]

Controversy

As with so many of Portland's early bridge projects, the decision to build what would become the Broadway Bridge was fraught with political in-fighting, legal and financial delays, and numerous other complications brought about by the competing interests involved in the siting, funding, and design considerations of any trans-Willamette River construction. Debate about where the bridge would go, the cost of purchasing the land required for approach spans, the bridge's height over the river way, impacts on the Port of Portland, the railroad, and shipping interests, not to mention the City of Portland's own issues over debt, presented huge obstacles to the completion of any new Willamette River span. In the case of the Broadway Bridge, which would become the first new bridge to be built on an entirely new alignment in almost 20 years by the time it

[10] At this time the only modern vertical lift bridge, the 1893–94 South Halsted Street Bridge in Chicago, had only recently been upgraded with electric motors to replace the balky steam engines that had reduced its efficiency. No vertical-lift bridges had been constructed in the United States for over a decade since the Halsted Street span and none would be until Portland's Hawthorne Bridge was completed in 1910. Modjeski, like every other engineering firm except Waddell & Harrington, was unfamiliar with vertical lift-technology, hence his caution in recommending it.

[11] *Oregonian*, 20-May-1909.

[12] *Oregonian*, 27-October-1910, 13:2.

was completed, the controversy was especially fractious.[13] In 1908, after the city had evaluated Modjeski's report on options and chosen to build a draw span, local promoters began to agitate for a bond sale to fund the construction quickly. In November 1908 the East Side Improvement Club announced a plan to ask the city council to secure $1.6 million, based on Modjeski's estimates, to pay for the bridge and the purchase of private property required for the construction of the right-of-way and approach spans.[14] In October 1909 the city formally approved Modjeski's contract as the "consulting engineer in charge of the construction of the Broadway Bridge, having selected a bascule bridge as the most cost-effective and practical design."[15]

According to the *Oregonian*, "The construction of the Broadway Bridge will be rapidly pushed," said Mayor Simon. "There is to be no delay on the part of the city or the consulting engineer and everything that can be done to complete the bridge in quick time will be done.[16] Despite the mayor's hopeful assessment, two months later commissioners for the Port of Portland broke out into what was described at the time as "open hostility" over whether or not to sanction the construction of the Broadway Bridge and, even if it were to be approved, what the Port would expect in terms of its design. The *Oregonian* reported that "President Swigert, who was in the chair [of the Port Commission], locked horns with Mayor Simon on the question of the length of the draw, demanding that it be 300 feet." However, "Ralph Modjeski, employed by the city as consulting engineer, had declared to the Mayor on his recent visit that it is unnecessary to have so long a draw and the Mayor upholds his view."[17]

The controversy continued, with various port users and property owners weighing in against the bridge, as local advocates and Mayor Simon continued to argue for its immediate construction all through the winter of 1909–10. In mid-January 1910, in light of increasing public complaint over its actions, the Port of Portland dropped its opposition to the span by voting to postpone indefinitely its review of the project in recognition that it lacked any jurisdiction to alter the bridge's design. That decision was up to the War Department, which indicated it would approve the proposed 250-foot drawbridge. In February 1910 the Mayor and others presented the city's case to Major James F. McIndoe, district engineer of the U.S. Army Corps of Engineers, the only body that could impose design or construction conditions on the span. At the Corps hearing on the matter, numerous river pilots testified that the 250-bascule design proposed for the Broadway Bridge would not in any way damage river navigation. The *Oregonian* noted that, "[p]erhaps the strongest points scored by the Broadway Bridge interests were the declarations of Captain Harry Emken, for 35 years in charge of all kinds of steamers on the river, and of Captain E. W. Spencer….Both made clear cut statements saying that there would be no obstruction to shipping from the proposed…span.[18]

With the Port of Portland's objections overcome, and with the approval of the War Department, the construction of the Broadway Bridge appeared ready to proceed. By spring 1910, however, opposition from yet another quarter again threatened to scuttle the project. The O.R. & N. Railroad, a Union Pacific subsidiary that owned the Steel Bridge, built in 1888, had during this same period determined that it needed to replace that span to accommodate heavy railroad traffic. To connect with new rail lines leading north to the new Willamette and Columbia River bridges, the O.R. & N. needed to relocate the Steel Bridge's eastern terminus and that

[13] Prior bridge construction in Portland, the Morrison (Nos. 1 and 2), the Madison (Nos. 1 and 2), the Steel and the Burnside, each occurred on one of the same four bridge locations. The 1910 Hawthorne Bridge, going through its own controversial approval process almost concurrently with what would become the Broadway, was to be constructed on the existing alignment of the decrepit Madison Bridge.

[14] *Oregonian*, 4-November-1908, 14:3.

[15] Less than a month earlier, on October 7, 1909, the mayor and council were still reported as "seeking advice" on the best bridge form, be it a bascule or lift-type. Portland's Mayor Simon communicated with Chicago Mayor Busse, "where they have both type" and inquired as to his recommendation (See *Oregonian*, 7-October-1909, 7:2).

[16] *Oregonian,* 30-October-1909, 18:3.

[17] *Oregonian*, 10-December-1910, 18:1. Six days later a memorial to the Oregon Legislature was introduced by the "Committee of 50," an Oregon labor organization that called for the ouster of the entire Port of Portland Commission, chastising the commissioners for a catalog of infractions that included a threatened suit to stop the Broadway Bridge project. The memorial charged that the commission "…is not representative in character; that its membership is confined to a class of bankers, moneyed men and politicians; that the Commission is beyond popular control, that the present Commissioners….have treated the citizens of the municipality in a contemptuous and overbearing manner" (see *Oregonian*, 16-December-1910, 18:1).

[18] *Oregonian*, 24-February-1910, 12:1.

required a change in the existing right-of-way and the modification of several city street routes. The railroad's plan involved the Broadway span, since the City of Portland needed some of the land owned by the railroad for the eastern approaches to the bridge and the O.R. & N. now needed some modifications to the street plan to complete its own bridge, giving it much needed leverage with the city. Resolution of this issue again delayed construction of the Broadway Bridge as the two sides squared off, with supporters dividing into what might loosely be termed the old-style business interests (the railroad) and the new "Progressive" movement that was sweeping local politics.

When it became clear that the Broadway Bridge would require city acquisition of railroad land along the Willamette, as well as easements to permit approaches to pass over Union Station, local Progressive leaders postured and threatened condemnation proceedings against the railroad, posturing that became especially heated after Mayor Simon, a former railroad attorney, attempted to smooth the way for the construction of the new O.R. & N. bridge by proposing a land deal that the Progressives saw as excessively favorable to the railroad interests. Eventually, tempers eased and by unanimous decision the city and the railroad came to terms and exchanged land rights that would clear the way for the construction of both the Broadway and Steel bridges. Construction could now proceed, almost two years after the council had received Ralph Modjeski's report on the Broadway span.[19] There were still issues that delayed the bridge, including the passage of a charter amendment that extended the city's maximum indebtedness and a Supreme Court decision on the legality of the land transfer that would only be resolved in February 1912.

Construction Process

With Modjeski under contract, and the basic 1908 bascule design still in place, the city advertised for bids, using documents that Modjeski finalized by September 1911. Under the "Patents and Royalties" section of the specifications, Provision No. 11 specified that "the bascule span shown by the accompanying drawings and described by this specification is a two-leaf through, highway bascule bridge designed under the Strauss patent, controlled by the Strauss Bascule Bridge Company, of Chicago, Illinois." Provision No. 13 of the same section permitted a contractor to substitute another patented mechanism if the contractor assumed the liability for that decision. As late as 1911, then, Modjeski evidently saw the Strauss-designed bascule as the best option for the Broadway Bridge.

Still, in January 1912, Modjeski was in Portland to attend bridge committee hearings called to determine exactly what sort of bascule the Broadway Bridge would actually have. Four superstructure contractors had submitted bids, and each of them had offered the same four bascule options for the city's consideration, each at a different price. These four options were; Rall, Scherzer, and two variations on the Strauss bascule design.

The Pennsylvania Steel Company was the lowest bidder on each of the four bascule options and won the contract. Pennsylvania Steel's bid, like all of its competitors, showed the Rall bascule to be the least expensive option for the Broadway Bridge and the Strauss bascule, as preferred by Modjeski, to be the most expensive. This was probably due in part to the fact that the Rall design was far less established and as such its patent owner, the Strobel Steel Construction Company, charged only $12,000 in royalty fees, whereas the patent fee for the either of the Strauss or the Scherzer bascules was $5,000 higher.

At the January 1912 meeting of the bridge committee, having heard each of the bascule options, the committee narrowed their decision to the Rall and Strauss designs. The Scherzer bascules, although initially popular, had been beset by wear problems and this made them a less attractive choice for Portland, especially given that Portland had longer bridge spans than those found in Chicago and elsewhere, where the design had developed problems. Phillip L. Kaufman and Joseph B. Strauss came to Portland to make the case for the Strauss design while Mr. Edward Haupt, representing Strobel, the patent holder on the Rall bascule, gave the Strobel presentation. Modjeski also spoke on behalf of a particular bascule, perhaps reading the writing on the wall, as he had now shifted his support toward the economical Rall design. The *Oregonian* reported that,

[19] *Oregonian*, 11-May-1911, 13:1.

> This decision, Mr. Modjeski declares, is based upon a careful investigation of the types of bascules submitted to him and he says he will not recede from his recommendation. He says he considers the Rall type the best for the Broadway Bridge for many reasons, among which is the cost.[20]

Fairly quickly, in late January, the bridge committee announced its decision and recommended that the opening span of the new Broadway Bridge should indeed be a Rall bascule.[21] Much of the issue surrounding the decision, at least from the patent-holders standpoint, was the marketing value that would result from the construction of a bascule on the scale proposed for the Broadway span, a bridge that would become one of the larger bascule bridges in the world at that time. Indeed, this is exactly how the Broadway project worked out for the Strobel company, as the Broadway Bridge has figured prominently in almost all subsequent discussion of the Rall bascule, and has received the lion's share of attention in engineering textbooks. Despite the success of the Rall design for the Broadway Bridge as judged over the past century, the Rall design never became more than the least common of the four most common bascule designs. The Broadway Bridge remains not only the largest bridge ever constructed with a Rall bascule, but also one of only a few surviving Rall bascules in the United States.[22]

In addition to making its final decision on the bascule design, the bridge committee reviewed the bids for the superstructure and formally recommended that a contract be awarded to the Pennsylvania Steel Company.[23] The city had earlier awarded the substructure contract to the Union Bridge and Construction Company of Kansas City, Missouri. Union Bridge had come to Portland, probably at the behest of the Kansas City-based engineering firm Waddell & Harrington, who had recently completed the Hawthorne Bridge and in 1912 was at work on the new Steel Bridge. Union Bridge and Construction was also working on the Steel Bridge substructure and so had developed valuable familiarity with the character of the Willamette River. The railroad had already paid to bring Union's men and equipment to Portland for the Steel Bridge project, and while the rail line had notified Union that it would not pay to return any men or equipment used on the Broadway Bridge, the savings in paying only one-way transportation likely helped make Union's bid for the Broadway competitive when compared to other substructure contractors, resulting in the award from the city.

Union Bridge faced a complex task with the Broadway Bridge substructure. The use of pneumatic caissons for the four underwater piers of the Broadway Bridge presented special challenges, especially near the west shore, where low-lying areas of the river bottom had been filled, creating a thick layer of fine sand. The west river pier excavation had to go to 73 feet below the river bed to hit bedrock. The caisson immersion for that pier, at 101 feet and with pressure of 44 pounds, was only 10 feet shy of the record depth ever recorded for such work at the time. In the end, the final contract cost of the substructure was $607,828. The two granite-clad central piers, as required by Modjeski, who had a particular liking for the use of stone piers, accounted for more than sixty percent of the total substructure cost.

By the middle of summer 1912, work on the substructure had proceeded to the point where the Pennsylvania Steel Company was working on the falsework for the bridge's superstructure. An article in the *Oregonian* stated, "[w]ork of driving pilings across the west channel in the harbor on which to erect the first span of the Broadway Bridge to extend over the water had been started and the steel is in place within 100 feet of the river…."[24] Two months later, in early September, the west side of the superstructure was largely completed and work on the east side was soon to be underway.[25]

There was considerable local interest in construction of the bascule or draw mechanism, since the Broadway would be the first such bridge across the Willamette. Workers from Pennsylvania Steel built the bascule in the

[20] *Oregonian*, 15-January-1912, 12:1.
[21] *Oregonian*, 26-January-1912, 2:5–7.
[22] *The Conveyor*, Nov. 2004. *The Conveyor*, an industry publication, states that the Broadway Bridge is one of only three Rall-type bascule bridges still standing in the United States; however, this could not be confirmed. The three bridges were not identified and no other specific data on the number of total Rall designs built could be located.
[23] *Oregonian*, 26-January-1912:2-5-7.
[24] *Oregonian*, 3-July-1912, 20:1.
[25] *Oregonian*, 19-September-1912, 16:2.

open position, with the leaves about 80 degrees from horizontal or, in other words, just 10 degrees out of vertical to the remaining spans. The huge concrete counterweights were poured in stages, as the bascule leaf construction progressed, keeping the heel of the bascule leaf heavier than the channel end. In addition, 16x16-inch bracing set between the pier tops and the undersides of the leaves helped to hold them in near-vertical position. This method virtually eliminated any obstruction of river traffic during the construction process, a huge benefit to the Port of Portland. According to the *Oregonian*,

> [A] detail highly important to the mariners [on the Willamette] is the fact the draw will be so built that not until it is tested for adjustment will the space between the two center piers be closed to navigation. In fact, work on the draw will start tomorrow, the West side being commenced first. It will be erected 'straight in the air' and it will remain in perpendicular position until the test is ordered. The East Side half will be assembled in the same manner.[26]

Construction on the bascule span continued until late winter 1912. The first attempt to lower either side of the bascule was in early March 1913, when the west side was successfully lowered for the first time. The east side was still awaiting some final wiring, but was anticipated to be ready soon, allowing the bridge to close for the first time.[27] The first automobile to cross the Broadway Bridge made the trip in mid-April, before the bridge was formally dedicated. The *Oregonian* reported that,

> The distinction of having driven the first vehicle of any kind over the Broadway bridge belongs to Earl V. Owen, chauffeur of Mayor Rushlight's staunch grey automobile when it crossed the bridge yesterday. In the car were Mayor Rushlight, City Engineer Hurlburt, County Judge Cleeton and County Commissioner Lightner.[28]

Opening Celebration

As the bridge's long-awaited completion neared, excitement grew. In early 1913, an overly optimistic *Oregonian* correspondent noted that "two costly new bridges across river help efface physical barrier in city," commenting upon the recently completed O.R. & N bridge, the Steel Bridge, and the soon to be completed Broadway span. The Broadway Bridge was expected to open to traffic by March 1, with a total length of 2,988 feet, with the seven main spans totaling 1,737 feet and the two approaches the remainder.[29]

In late January, the North East Improvement Association, under the direction of the newly re-elected Judge M. G. Munley, announced the beginning of the planning process for a "Bridge Fete" to commemorate the new Broadway span, which he declared was "one of the greatest of Portland enterprises."[30] Munley, who had helped found the organization in March 1907, had been re-elected to that post as the result of his tireless efforts to secure a new bridge for the northern portion of the city.

In addition to planning for a city-wide celebration, in which it was hoped that all area business and civic groups would participate, the North East Improvement Association also sought to rename Seventh Street as "Broadway" and widen it. D. L. Povey, an Association member, declared "…that Broadway will be one of the great highways of Portland and will be to the East Side what Washington Street is to the West."[31]

The anticipated opening of the Broadway Bridge in early March 1913 came and went but shortly thereafter, by late April, the span was finally completed. On April 19, 1913 "…the finishing touches were applied…by the paving contractors, who completed the paving on the west end shortly before 5 o'clock."[32] The formal celebration of the event was planned for 3:00 in the afternoon on April 22, 1913. Ralph Modjeski prepared a

[26] *Oregonian*, 22-September-1912, 16:7.
[27] *Oregonian*, 6-March-1913, 18:3–5.
[28] *Oregonian*, 16-April-1915, 1:1.
[29] *Oregonian*, 1-January-1913, 4:1–4.
[30] *Oregonian*, 26-January-1913, 13:4.
[31] Ibid.
[32] *Oregonian,* 20-April-1913, 12:2

"certificate of acceptance," which was approved by the city executive board in a special meeting. Mayor Rushlight accepted the engineer's statement that the bridge, at a total cost of $1,600,000, was ready to be opened to the public. The *Oregonian* exclaimed that,

> East joined west, north joined south, and distant sections of the city were brought into close communion when the massive new Broadway Bridge across the Willamette was officially dedicated and formally opened yesterday afternoon.[33]

The choreographed ceremony included two groups of girls, representing the two sides of the river. The East Side group, headed by the four-year-old daughter of Judge Munley, set out across the great span toward a similar group of girls from the West Side, headed by Carolyn Levy, the "tiny daughter of J. P. Levy." The two groups met "…in the middle of the great bascule span and exchanged flags over the thin strip of space that separates the two ponderous steel segments," after which they strewed flower petals on the span and carried decorative flags to waiting adults.[34] A massive crowd, of both autos and pedestrians, packed the bridge span for the festivities. Captain Moore of the Portland Police led the police band at the head of the procession, followed by a line of 460 automobiles in what was called a "grand parade." The *Oregon Journal* enthused that the dedication of the Broadway Bridge marked a "new epoch" in the city's growth and expressed its conviction that the bridge would last 100 years. It reported that,

> A hundred years from this day of its opening…the Broadway Bridge still reaching its sturdy length from west to northwest Portland [can be] traversed by the grandchildren, perhaps even the great-grandchildren, of the little girls who today christen it with the pretty ceremony of strewing flowers….[35]

Registration Requirements

The Broadway Bridge is being nominated to the National Register under the Willamette River Highway Bridges of Portland, Oregon, Multiple Property Document (MPD). Evaluation of the bridge within the registration requirements of Section F of that document finds the following:

The Broadway Bridge meets the Minimum Eligibility Requirements:

- The bridge is located on the Willamette River, at River Mile 11.7, entirely within the City of Portland, Multnomah County, Oregon.
- The bridge's primary function is to providefor highway/vehicular needs within the city's transportation system although it also provides for bike and pedestrian use, as well as auto, truck and bus traffic. Historically the bridge was also an element in Portland's street railway system.
- The bridge is owned and maintained by Multnomah County. The county has had the responsibility of maintaining the Broadway Bridge since its completion in 1913.
- The bridge was completed in April 1913 and so meets the temporal context of the MPD. It is the most recent of the three spans identified as being within the 1910–13 subgroup of that context.

The Broadway Bridge meets the Minimum Integrity Requirements:

- The bridge remains on its original piers and within its original alignment.
- The bridge remains substantially "as-built" with high integrity with respect to its original steel superstructure, as well as its steel/concrete and granite-faced concrete piers. Serial modification of the deck, and repair/upgrade of the mechanical and operational elements of the electrical system, do not seriously impact integrity in any way.

[33] *Oregonian*, 23-April-1913, 1:1.
[34] Ibid.
[35] Or*egon Journal*, 22-April-1913, 1:4–5.

- The bridge retains very high integrity in feeling and association, effectively relating its original character, design, and appearance so as to convey its relationship to the history of Portland, Oregon.

As a result of the above, the Broadway Bridge meets the eligibility requirements for listing on the National Register under Criterion A, as defined by the Willamette River Highway Bridges of Portland Multiple Property Document.

In addition to eligibility under Criterion A, the Broadway Bridge is considered to have national significance under Criterion C. Evaluation against the registration requirements finds the following:

- The Broadway Bridge is a rare and nationally significant example of the Rall-type bascule, as designed and patented by Theodor Rall in 1901.
- The Broadway Bridge is the largest example of a Rall bascule ever constructed.
- The Broadway Bridge is one of only three known Rall bascule bridges in the US still standing and is both older and significantly larger than any other known example.
- The Broadway Bridge retains a high degree of integrity in both design and workmanship and is a exemplar of its type, representing one of the four major patented bascule forms that were developed during the late 19th and early 20th centuries.

As a result of the above, the Broadway Bridge, in addition to its already demonstrated eligibility under Criterion A, reflects associations of larger design and technological significance related to the Rall-type bascule and maintains sufficient integrity to accurately relate that association, as required for eligibility under National Register Criterion C.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

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Lansing, Jewell. *Portland: People, Politics and Power 1851–2001*. Corvallis, OR: Oregon State University Press, 2003–2005.

MacColl, E. Kimbark. *The Growth of a City: Power and Politics in Portland, Oregon 1915–1950*. Portland, OR: The Georgian Press, 1979.

McGaw, Judith A. *Broadway Bridge, Historic American Engineering Record [HAER No. OR-22]*. Prepared as part of the Willamette River Bridges Recording Project, HAER/Oregon Department of Transportation, in cooperation with Multnomah County, 1999.

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Oregon Journal. Misc. issues as cited by date/page in text.

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Ritz, Richard Ellison. *Architects of Oregon*. Portland, OR: Lair Hill Publishing, 2002.

Smith, Dwight, James B. Norman and Pieter T. Dykman. *Historic Highway Bridges of Oregon (*2nd, Revised Ed.). Portland, OR: Oregon Historical Society Press, 1986.

The Conveyor. "Broadway Bridge Installation Marks Historic Milestone," November 2004.

Wood Wortman, Sharon, with Ed Wortman. *The Portland Bridge Book* (3rd Edition). Portland, OR: Urban Adventure Press, 2006.

Previous documentation on file (NPS):

____preliminary determination of individual listing (36 CFR 67 has been requested)
____previously listed in the National Register
__X__previously determined eligible by the National Register
____designated a National Historic Landmark
____recorded by Historic American Buildings Survey #_____
__X__recorded by Historic American Engineering Record # OR-22
____recorded by Historic American Landscape Survey # _____

Primary location of additional data:

____State Historic Preservation Office
__X__Other State agency
____Federal agency
__X__Local government
____University
____Other
Name of repository: Oregon Dept of Trans., Multnomah Cty

Historic Resources Survey Number (if assigned): N/A

Broadway Bridge — Name of Property
Multnomah Co., OR — County and State

10. Geographical Data

Acreage of Property Less than one acre
(Do not include previously listed resource acreage.)

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
1	10	525550	5041900	3			
2				4			

Verbal Boundary Description (Describe the boundaries of the property.)

The nominated area includes the entire Broadway Bridge structure itself, above the river bed and between the approach spans that connect the structure to the road system on either side of the Willamette River.

Boundary Justification (Explain why the boundaries were selected.)

The nominated area encompasses the entirety of the historic Broadway Bridge, while excluding the adjacent non-contributing public streets and structures.

11. Form Prepared By

name/title George Kramer, M.S., Senior Preservation Specialist
organization Heritage Research Associates, Inc. date February 2011
street & number 1997 Garden Ave telephone (541) 482-9504 (541) 485-0454
city or town Eugene state OR zip code 97403
e-mail george@preserveoregon.com

Broadway Bridge | Multnomah Co., OR
Name of Property | County and State

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property: Broadway Bridge

City or Vicinity: Portland

County: Multnomah **State:** OR

Photographer: George Kramer
Heritage Research Associates, Inc. Eugene, OR

Date Photographed: April 2011

Description of Photograph(s) and number:

Photo 1 of 4: (OR_MultnomahCounty_WillametteHwyBridgesMPD_BroadwayBridge_0001)
Upstream view, looking NE, from west side bike path

Photo 2 of 4: (OR_MultnomahCounty_WillametteHwyBridgesMPD_BroadwayBridge_0002)
Upstream view, looking NW, from Vera Katz Esplande

Photo 3 of 4: (OR_MultnomahCounty_WillametteHwyBridgesMPD_BroadwayBridge_0003)
Downstream view, looking west, toward downtown Portland, from Vera Katz Esplanade

Photo 4 of 4: (OR_MultnomahCounty_WillametteHwyBridgesMPD_BroadwayBridge_0004)
Downstream view, Operator's tower

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

  A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items.)

Broadway Bridge
Name of Property

Multnomah Co., OR
County and State

Property Owner: (Complete this item at the request of the SHPO or FPO.)

name Multnomah County Bridge Section, attn: Ian Cannon, County Bridge Services Manager

street & number 1403 SE Water Ave telephone (503) 988-3757

city or town Portland state Oregon zip code 97214

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Broadway Bridge
Name of Property
Multnomah Co., OR
County and State
Willamette River Highway Bridges of Portland, Oregon
Name of multiple listing (if applicable)

Section number Documents Page 20

Documents

Figure 1: Project Location Map, ODOT, City of Portland Quadrangle, Annotated

Figure 2: USGS, Portland 7.5 Quadrangle, 1990, Annotated

Figure 3: Broadway Bridge Boundary Map

Figure 4: Five Bridges over the Willamette River, looking north, c. 1927
Author's Collection, Broadway Bridge at top of image

Figure 5: Aerial View of Portland, c. 1927, author's collection, Broadway Bridge at top of image

Figure 6: Postcard Image, circa 1914, author's collection

Figure 7: Postcard Image, circa 1914, author's collection

Figure 8: Postcard Image, circa 1915, author's collection

Figure 9: Postcard Image, circa 1950, author's collection

Figure 10: Newspaper Excerpt, "City is United by Broadway Bridge — Greater Portland Born with Opening" *Oregonian*, 23-April-1913, 1:1-5

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Broadway Bridge	Name of Property
Multnomah Co., OR	County and State
Willamette River Highway Bridges of Portland, Oregon	Name of multiple listing (if applicable)

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Figure 1: Project Location Map, ODOT, City of Portland Quadrangle, Subject property indicated with arrow

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Broadway Bridge
Name of Property
Multnomah Co., OR
County and State
Willamette River Highway Bridges of Portland, Oregon
Name of multiple listing (if applicable)

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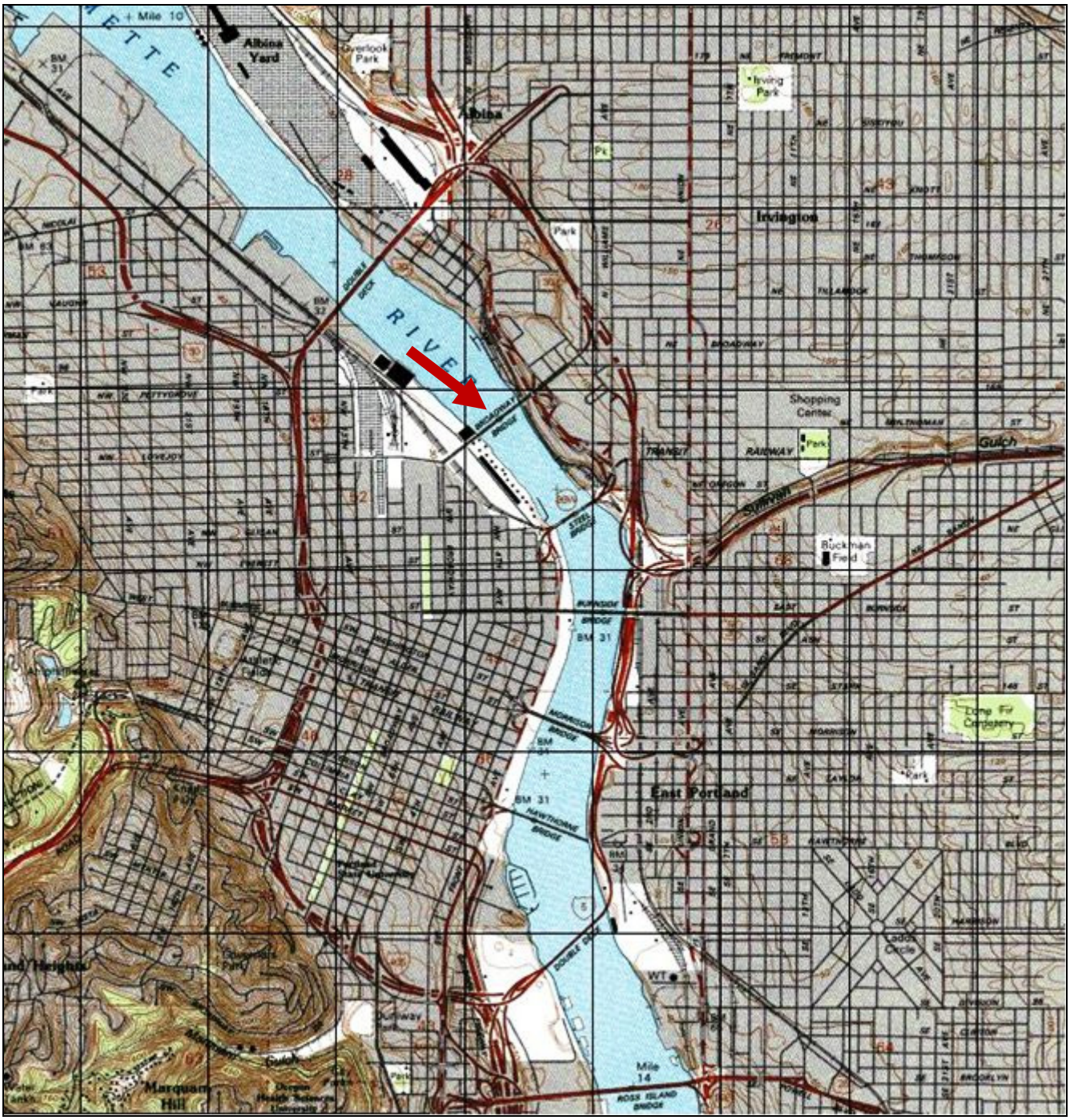
Figure 2: USGS, Portland 7.5 Quadrangle, 1990, Subject property indicated with arrow



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Broadway Bridge	Name of Property
Multnomah Co., OR	County and State
Willamette River Highway Bridges of Portland, Oregon	Name of multiple listing (if applicable)

Section number Documents Page 23

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

Figure 4: Five Bridges Over the Willamette River, looking north, circa 1927
Author's collection, Broadway Bridge at top of image

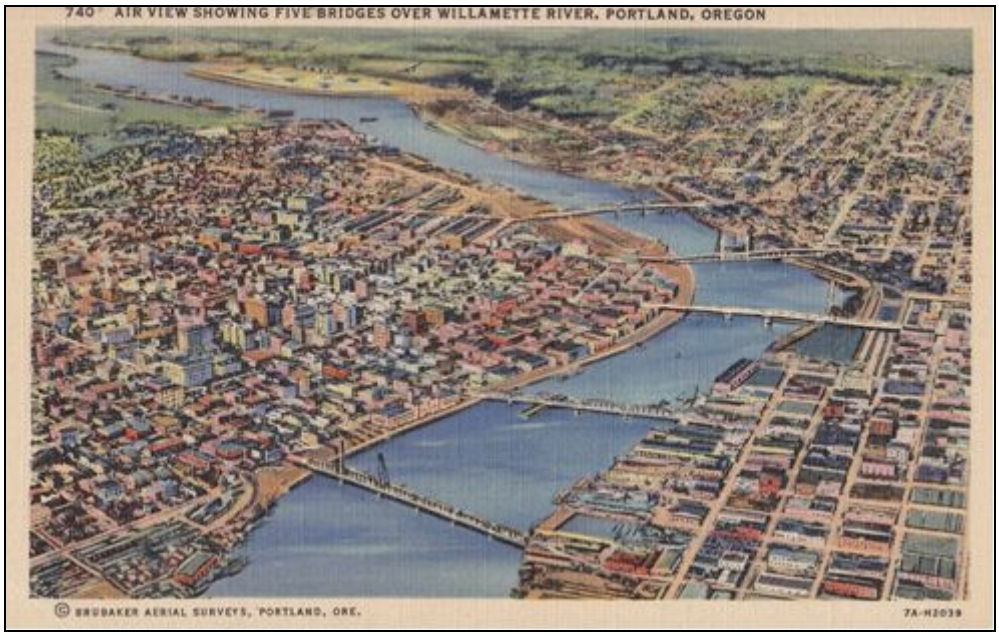


Figure 5: Aerial View of Portland, circa 1927, author's collection, Broadway Bridge at top of image

Figure 6: Postcard Image, circa 1914, author's collection

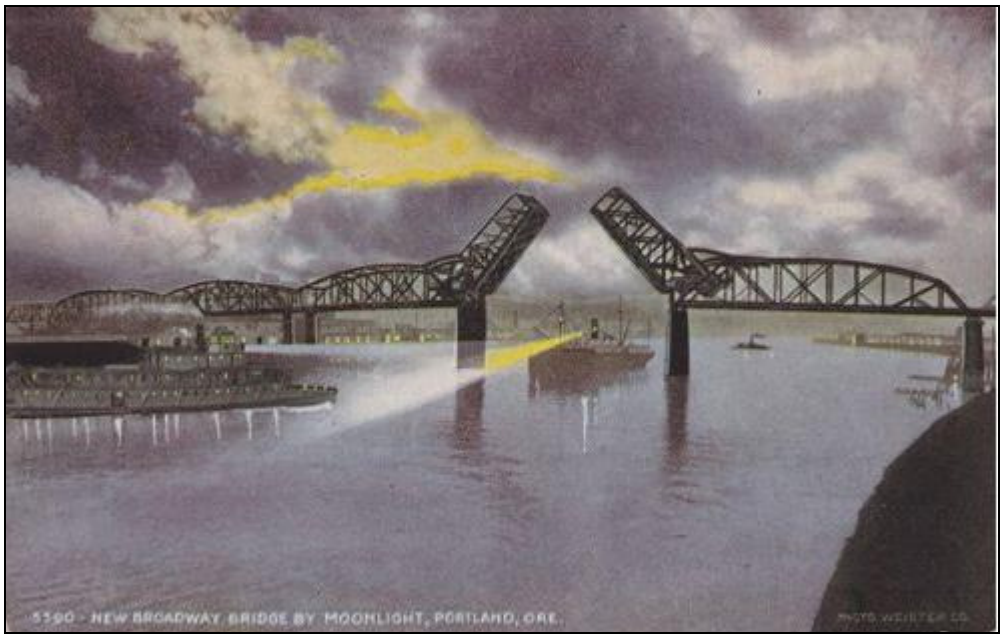


Figure 7: Postcard Image, circa 1914, author's collection

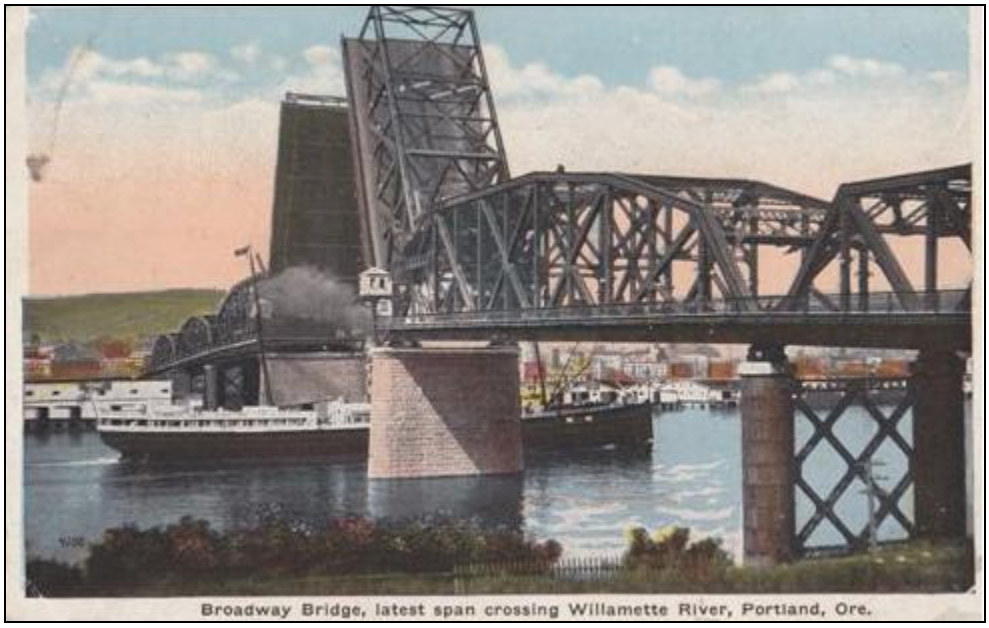


Figure 8: Postcard Image, circa 1915, author's collection

Figure 9: Postcard Image, circa 1950, author's collection

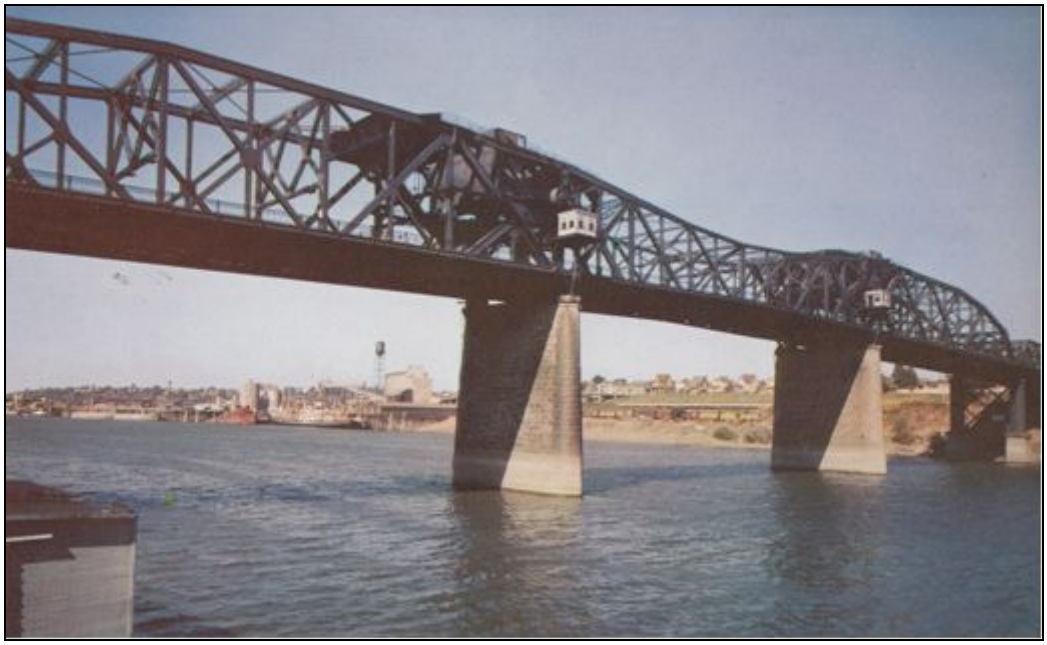


Figure 10: Newspaper Excerpt, “City is United by Broadway Bridge — Greater Portland Born with Opening” *Oregonian*, 23-April-1913, 1:1-5


PART OF GREAT CROWD ON EAST APPROACH AND EAST END OF BROADWAY BRIDGE LISTENING TO ADDRESSES ATTENDING DEDICATION.

AUTOMOBILES AND PEDESTRIANS PACKED CLOSELY TOGETHER, PROVIDING ENORMOUS WEIGHT THAT DEMONSTRATES GREAT STRENGTH OF STRUCTURE.

Photo 1 of 4: (OR_MultnomahCounty_WillametteHwyBridgesMPD_BroadwayBridge_0001)
Upstream view, looking NE, from west side bike path

Photo 2 of 4: (OR_MultnomahCounty_WillametteHwyBridgesMPD_BroadwayBridge_0002)
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Downstream view, Operator's tower