# National Register of Historic Places Registration Form

OMB No. 1024-0018 JUN 2 2 2005

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. 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 entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

## 1. Name of Property

historic name <u>Umpqua River Bridge No. 01822</u>
other names/site number <u>Umpqua River (Reedsport) Bridge</u>
2. Location
street & number <u>Oregon Coast Highway No. 9 (US 101), MP 211.21</u> not for publication
city or town <u>Reedsport</u> vicinity
state <u>Oregon</u> code <u>OR</u> county <u>Douglas</u> code <u>019</u>
zip code <u>97439</u>
3. State/Federal/Tribal Agency Certification
As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this Image nomination is 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 Image is does not meet the National Register Criteria. I recommend that this property be considered significant in a tionally is statewide in locally. (Image continuation sheet for additional comments.)         Image is a contract of the intervention of the interventintervention of the intervention of the int
4. National Park Service Certification
I, hereby certify that this property is:
removed from the National Register
other (explain):      Signature of Keeper Date of Action

## 5. Classification

## **Ownership of Property**

(Check as many boxes as apply)

- private
  - public-local public-State
  - public-Federal

## **Category of Property**

- (Check only one box)
  - building(s) district site  $\square$ structure object

### Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing
	buildings sites
1	structures
	objects Total

Number of contributing resources previously listed in the National Register 0

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

C. B. McCullough Major Oregon Coast Highway Bridges, 1927-36.

#### 6. Function or Use

## **Historic Functions**

(Enter categories from instructions)

Transportation

## **Historic Subfunctions**

(Enter subcategories from instructions)

Road-related

## 7. Description

# **Architectural Classification**

(Enter categories from instructions)

Late 19th and 20th Century Revivals **Classic Revival** Late Gothic Revival Modern Movement Art Deco Moderne

## **Materials** (Enter categories from instructions)

Foundation Other

Concrete Steel Concrete

#### **Narrative Description**

(Describe the historic and current condition of the property on one or more continuation sheets)

See continuation sheets.

#### 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)

🖾 A Property is associated with events that have made a significant contribution to the broad patterns of our history.

Пв Property is associated with the lives of persons significant in our past.

(Enter subcategories from instructions)

Transportation

**Current Functions** 

**Current Subfunctions** 

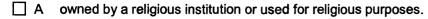
Enter categories from instructions)

Road-related

- 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.)



- B removed from its original location.
- C a birthplace or a grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- **F** a commemorative property.

G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance

(Enter categories from instructions)

Engineering Transportation

**Period of Significance** 

1933-36

Significant Dates

Completed in 1936.

Significant Person (Complete if Criterion B is marked above)

#### **Cultural Affiliation**

#### Architect/Builder

Conde B. McCullough, designer Teufel and Carlson, Seattle, Washington, contractor

#### **Narrative Statement of Significance**

(Explain the significance of the property on one or more continuation sheets.)

See continuation sheets.

## 9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)

preliminary determination of individual listing (36 CFR 67) has been requested.
previously listed in the National Register

<ul> <li>previously determined eligible by the National Register</li> <li>designated a National Historic Landmark</li> <li>recorded by Historic American Buildings Survey #</li> <li>recorded by Historic American Engineering Record # <u>OR-45</u></li> </ul>		
Primary Location of Additional Data          State Historic Preservation Office         Other State agency         Federal agency         Local government         University         Other         Prints and Photographs Division, US Library	<u>of Congress</u>	
10. Geographical Data		
Acreage of Property		
UTM References (Place additional UTM references on a continuation sheet)		
	3	
Zone Easting Northing	Zone Easting Northing 4	
Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.) Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)		
11. Form Prepared By		
name/title Robert W. Hadlow, Ph.D., Senior Historian		
organization_Oregon Department of TransportationdateJune 30, 2004		
street & number <u>123 NW Flanders Street</u> telephone (503) 731-8239		
city or town Portland state C	PRzip code97209-4037	
Additional Documentation		

Submit the following items with the completed form:

## **Continuation Sheets**

Maps

**USGS map** (7.5 or 15 minute series) indicating the property's location. sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items)

#### **Property Owner**

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

name Oregon Department of Transportation

Umpqua River Bridge No. 01822		Douglas County, Oregon
street & number_355 Capitol Street NE	telephone	
city or town <u>Salem</u>	_stateOR_zip code _ <u>97301</u>	

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.0. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503

# NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section 7 Page 6

Umpqua River Bridge No. 01822 Name of Property

Douglas County, Oregon County and State

## **Narrative Description**

The Umpqua River Bridge No. 01822 is a reinforced-concrete bridge with a central steel swing span. Its completion in 1936 eliminated an antiquated ferry service across the Umpqua River estuary. The bridge is located at milepost 211.21 on the Oregon Coast Highway No. 9 (US 101) at the north end of Reedsport, Douglas County, Oregon.

The Umpqua River Bridge's main span is a 430-foot steel through Parker truss swing span with a concrete deck. The span is electrically moved with a 60-horsepower motor by twin controllers—one located in the operator's house above the roadway in the center of the span, and the other along the sidewalk at the roadway level. The original permit for the bridge specifies that the span swing to a 90-degree angle to provide two channel throughways with a horizontal clearance of 195 feet each. However, at the request of the U.S. Army Corps of Engineers, the builders of the bridge placed fenders at the piers and set the draw rest at an 80-degree skew. The result is that the actual horizontal clearance of the two channels when the bridge is open is 182 feet. When the span is closed vertical clearance above mean low water is 354 feet.<sup>1</sup>

The swing span is flanked by two reinforced-concrete through tied arches each 154 feet long. The sway braces are reinforced curved concrete members. They maintain superstructure rigidity. A temporary "Considère" hinge was used near the crown of each arch rib to aid in construction.

The approaches are reinforced-concrete deck girder spans. The two on the north end are each 42 feet long. A total of twenty-three spans make up the south approach. These range from 42' to 70' in length, totaling 1,072 feet. From end-toend, the bridge is 2,206 feet long. The roadway consists of two travel lanes measuring 27 feet curb-to-curb. Sidewalks are 3 feet wide.

On the Umpqua River Bridge, McCullough combined the vocabularies of classical and Gothic-style elements with the popular Art Deco and Moderne influences of the late 1920s and the 1930s. The bridge's concrete bents are tiered and ornamented in the Art Deco style with vertical detailing. Likewise, pier and column surfaces are broken by scoring strips. However, the web walls between main pier legs were cut away in the form of Gothic arches with sunburst rays. In addition, ornamental elbow brackets mounted at the top of the spandrel columns supporting and protruding beyond the sidewalks. The sidewalk balustrades include panels comprising small, stylized Gothic arches, which repeat the form seen in the piers and bents. They are stepped back in the Art Deco/Moderne philosophy to create shadow lines and increase visual interest.

Decorative Art Deco and classical elements are found throughout this structure. The reinforced-concrete tied arches have fluted Art Deco-style entry pylons, concrete portal braces with scored decorative cartouches, and scored slender deck hangers. Curved elbow brackets support the sidewalks. Piers consist of slender, fluted legs joined by Gothic arch-shaped webs that in series are reminiscent of the roof trusses of European cathedrals. The central steel swing span is devoid of ornamentation.<sup>2</sup>

The contract was awarded to Teufel and Carlson, of Seattle, Washington. It ran from 30 July 1934 to 7 April 1936. Resident engineers for the state were Dexter R. Smith and L. L. Jensen. The project consumed 215,000 human hours of labor. An average of 125 workers was employed each week, with a weekly payroll of \$2,500. The project consumed 10,000 cubic yards of concrete, 740 tons of structural steel and 650 tons of reinforcing steel. In addition, 3,500 cubic

<sup>&</sup>lt;sup>1</sup> Oregon Department of Transportation, Bridge Section Maintenance File #1822, L. A. DeFrance, Assistant Maintenance Engineer, to G. S. Paxson, Bridge Engineer, 7 November 1952; O. C. Chase, "Design of Coast Highway Bridges," *Civil Engineering* 6 (October 1936): 648-51; ODOT, Environmental Section, Bridge File #1822, "Engineering Antiquities Survey," November 1982.

<sup>&</sup>lt;sup>2</sup>"Bridge Log," Dwight A. Smith, James B. Norman, and Pieter T. Dykman, *Historic Highway Bridges of Oregon* (Portland: Oregon Historical Society Press, 1989), 120; Chase, "Design of Coast Highway Bridges," *Civil Engineering* 6 (October 1936): 648-51.

## NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section <u>7</u> Page <u>7</u>

Umpqua River Bridge No. 01822 Name of Property

Douglas County, Oregon County and State

yards of excavation was moved and 41,000 feet of piling was driven. Final cost for the bridge was \$581,000.3

The Umpqua River Bridge opened on 2 July 1936 without ceremony. Since then, most of the maintenance on the structure has been routine. In 1937, manholes were installed in the traffic barriers to facilitate maintenance. That same year inspectors noted settling of the south approach, which was reinforced in 1940. In 1941, the bronze expansion plates were removed and repaired, and the transverse beams were reinforced with concrete brackets. On 15 October 1951, a ship struck the catwalk when the captain tried to take it through the open swing backwards without the aid of a rudder. The state repaired the bridge and contemplated bringing suit against the owners, but dropped the suit for fear that the case would bring to light the fact that the horizontal clearance of the open span did not meet the specification on the bridge permit. In 1953 the traffic barriers were re-decked with steel plates.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup>"Job Record," File No. 1822 (Umpqua River Bridge), ODOT Bridge Section files, Salem; Oregon State Highway Commission, *Twelfth Biennial Report, for 1935-36*, 58.

<sup>&</sup>lt;sup>4</sup>G. S. Paxson, "Umpqua Bridge is Third Costliest of Five Coast Structures, Opened July 2, 1936, Without Ceremony," *Reedsport Courier*, 25 September 1936; ODOT, Bridge Section Maintenance File #1822, "Bridge History Record of Maintenance," (1934 to 1953); J. A. Weber, Mechanical Engineer, to G. S. Paxson, Bridge Engineer, 15 July 1952.

# NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section 8 Page 8

Umpqua River Bridge No. 01822 Name of Property

Douglas County, Oregon County and State

## **Narrative Statement of Significance**

The Umpqua River Bridge No. 01822 is being nominated under the Oregon Coast Highway Bridges Multiple Property Submission. It is significant under National Register criterion C because it embodies the distinctive characteristics of a type, period, and method of construction of mid-twentieth-century reinforced-concrete arch bridge technology. Just as important, it is significant under criterion C as the work of a master, Conde B. McCullough, Oregon state bridge engineer from 1919 to 1936. The bridge is also significant under criterion A for its association with construction of the Oregon Coast Highway, which eventually ran the length of Oregon and connected with adjacent segments in California and Washington. The road would not have been complete without eleven major bridges, including the Umpqua River Bridge, and many other spans.

Europeans have lived in the present Reedsport area since the 1880s. Warren P. Reed owned 4,000 acres along the south shore of the Umpqua River, just north of Winchester Bay. By 1911, the Pacific Great Western Railway Company (later the Southern Pacific) began constructing a branch line from Eugene east to the mouth of the Siuslaw River at Florence and then south to the mouth of the Umpqua and then to Coos Bay to connect this coastal region with the interior of western Oregon. Reedsport, named for Reed's father Alfred, was incorporated the next year and became a shipping point for diary products and lumber. By the 1920s, the community had two sawmills, several canneries, and a creamery. Construction of the Oregon Coast Highway in the 1920s and completion of the Umpqua River Bridge in 1936 connected Reedsport by road with Florence to the north and Coos Bay to the south and made tourism an important component of the local economy.<sup>5</sup>

The Umpqua River Bridge possesses national significance under criterion C as one of the six major bridges that McCullough constructed on the Oregon Coast Highway between 1931 and 1936 and spanned the remaining barriers to efficient travel along the route—three bays and three river estuaries that relied on an outmoded ferry service. (The others were the Alsea Bay Bridge at Waldport, the Yaquina Bay Bridge at Newport, the Siuslaw River Bridge at Florence, the Coos Bay (McCullough) Bridge at Coos Bay, and the Rogue River Bridge at Gold Beach.) Completion of these bridges (one in 1932 and five in 1936) is considered the dividing line between the period of relative isolation and dependence on sea transportation for many of Oregon's coastal communities and their newfound association with each other along this ribbon of asphalt, known as US 101. The Umpqua River Bridge is the only one of the five PWA coastal bridges to be constructed with a swing span. It is also the longest swing span constructed in Oregon, and is the only one still in use on the state's highways.

The Umpqua River Bridge is also significant under criterion C as the work of a master, Oregon State Bridge Engineer, Conde B. McCullough, and due to its thematic association with several other major steel and reinforced-concrete bridges designed by McCullough and erected along the Oregon Coast Highway in the 1920s and 1930s. During his years as State Bridge Engineer, and later as Assistant State Highway Engineer, McCullough authored several books and many technical articles on bridge design and construction. He is significant for his use of innovative bridge technology, and for his visually appealing designs. He attained international recognition for the large-scale structures he designed to span the major rivers and estuaries, and several other thematically-similar concrete beam and girder structures, along the Oregon coast for the completion of the Oregon Coast Highway in the 1930s.

McCullough's bridges used many common design themes and elements, including stylized sidewalk railing balustrades; curved bracketing; arched curtain walls, often with bush-hammered inset panels; and Art Deco ornamentation, including entrance pylons, columns, stringers, piers and other vertical structural members. Eric N. DeLony, chief of the Historic American Engineering Record, remarked in his book, *Landmark American Bridges*, that this family of spans on the Oregon Coast Highway "represents some of the best and most innovative concrete and steel bridges in the world." The Gothic arch

<sup>&</sup>lt;sup>5</sup>Stephen Dow Beckham, Land of the Umpqua: A History of Douglas County, Oregon (Roseburg: Douglas County Commissioners, 1986), 135-

# NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section 8 Page 9

Umpqua River Bridge No. 01822 Name of Property

Douglas County, Oregon County and State

forms seen in the handrails and piers complement the Art Deco/Moderne verticalness seen in the pier legs and entry pylons to create a streamlined elegance.<sup>6</sup>

The Umpqua River Bridge is significant under criterion A because of its association with the construction of the Oregon Coast Highway in the 1930s. Completion of the Oregon Coast Highway was a major public works effort in the early and mid-1930s to establish an uninterrupted transportation route from California to Washington. This undertaking was aided by the Oregon Coast Bridges Project in which the federal Public Works Administration provided funds for the construction of five modern bridges to replace the existing slow, cumbersome ferries which serviced the crossings of the larger bays, rivers and estuaries. An immediate accomplishment of the route's completion was the construction jobs that it provided to many unemployed workers. In more long lasting terms, its completion was a major factor in the development of commerce and tourism in Oregon's coastal regions, and has since become one of the most notable scenic routes in the United States, and has been designated a National Scenic Byway.

The Umpqua River Bridge meets the property type and registration requirements for the C. B. McCullough Major Oregon Coast Highway Bridges Multiple Property Submission. It was completed during the period of significance (1927-36) on the then current alignment of the Oregon Coast Highway. It was designed by Oregon State Highway Department bridge engineers under the direction of Conde B. McCullough. Its primary or secondary main spans are reinforced-concrete arches. It possesses a high degree of original integrity of design and materials.

# NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section 9 Page 10

Umpqua River Bridge No. 01822 Name of Property

Douglas County, Oregon County and State

## **Major Bibliographical References**

Baldock, R. H. "Bridge Builders' Secrets," Oregon Motorist 16, no. 4 (May 1936): 5-12.

- Beckham, Stephen Dow. Land of the Umpqua: A History of Douglas County, Oregon. Roseburg: Douglas County Commissioners, 1986.
- Castle, Arlene, et al. Yaquina Bay: 1778-1978. Newport, OR: Lincoln County Historical Society, 1979.
- Chase, O. C. "Design of Coast Highway Bridges," Civil Engineering 6 (October 1936): 648-51.

Corning, Howard M., ed. Dictionary of Oregon History. Portland: Binsford & Mort Publishing, 1989.

- DeLony, Eric. Landmark American Bridges. New York: American Society of Civil Engineers and Bulfinch Press, 1993.
- Hadlow, Robert W. *Elegant Arches, Soaring Spans: C. B. McCullough, Oregon's Master Bridge Builder*. Corvallis: Oregon State University Press, 2001.
- "History of Coast Bridge Program is Interesting," North Bend Harbor, 28 May 1936.
- Link, Gary M. "Umpqua River Bridge, HAER No. OR-45, Report." Historic American Engineering Record, National Park Service, 1990.
- "Lovely Settings to Be Provided for New Bridges," Marshfield Coos Bay Times, 1 June 1936.
- "Lumbermen to Meet to Protest Concrete for 5 Coast Bridges," Cottage Grove Sentinel, 7 July 1933.
- McCullough, C. B. "Five New Spans for Coast Highway." Astoria Astorian Budget, 26 February 1934.
- Miller, Ed W. "Spanning the Depression," Oregon Motorist 8 (May 1936): 12.
- "North Bend Backs Bridge Engineers," North Bend Harbor, 6 July 1933.
- "Oregon Bridges Subject of Address Before AAUW," Salem Oregon Statesman, 21 January 1934.

Oregon Department of Transportation. Bridge Section Maintenance File #1822.

Oregon State Highway Commission. Eleventh Biennial Report, for 1933-34.

- -----. Twelfth Biennial Report, for 1935-36.
- Paxson, G. S. "Construction of Coast Highway Bridges." Civil Engineering 6, no. 10 (October 1936): 651-55.
- ------. "Umpqua Bridge is Third Costliest of Five Coast Structures, Opened July 2, 1936, Without Ceremony." *Reedsport Courier*, 25 September 1936.
- Peterson, Ernest W. "Conquest of Oregon Coast Nears End." Portland Oregon Journal, 6 September 1936, s. 4, p. 1.
- Say, Harold B. "Progress Takes Its Toll," Oregon Motorist 8 (May 1936): 13.
- "Siuslaw Span Part of \$25,000,000 Road Investment," Eugene Register-Guard, 17 May 1936.
- "Squabble Over Lumber Ties Up Five Bridges," Portland Oregon Journal, 9 July 1933.

# NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section 9 Page 11

Umpqua River Bridge No. 01822 Name of Property

Douglas County, Oregon County and State

"Want Bridges Built of Wood," North Bend Harbor, 6 July 1933.

"Years of Planning for Coast Bridges Bear Fruit in Series of Dedications," Marshfield Coos Bay Times, 1 June 1936.

# NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section <u>10</u> Page <u>12</u>

Umpqua River Bridge No. 01822 Name of Property

Douglas County, Oregon County and State

## **Verbal Boundary Description**

The property is described as beginning at the north end of the Umpqua River Bridge, at mile post 211.21 on the Oregon Coast Highway No. 9, and running 2,206 feet to the south end of the bridge. It is 60 feet wide (30 feet either side of center line on the bridge).

## **Boundary Justification**

The boundary includes property associated historically with the Umpqua River Bridge.

# NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section <u>11</u> Page <u>13</u>

Umpqua River Bridge No. 01822 Name of Property

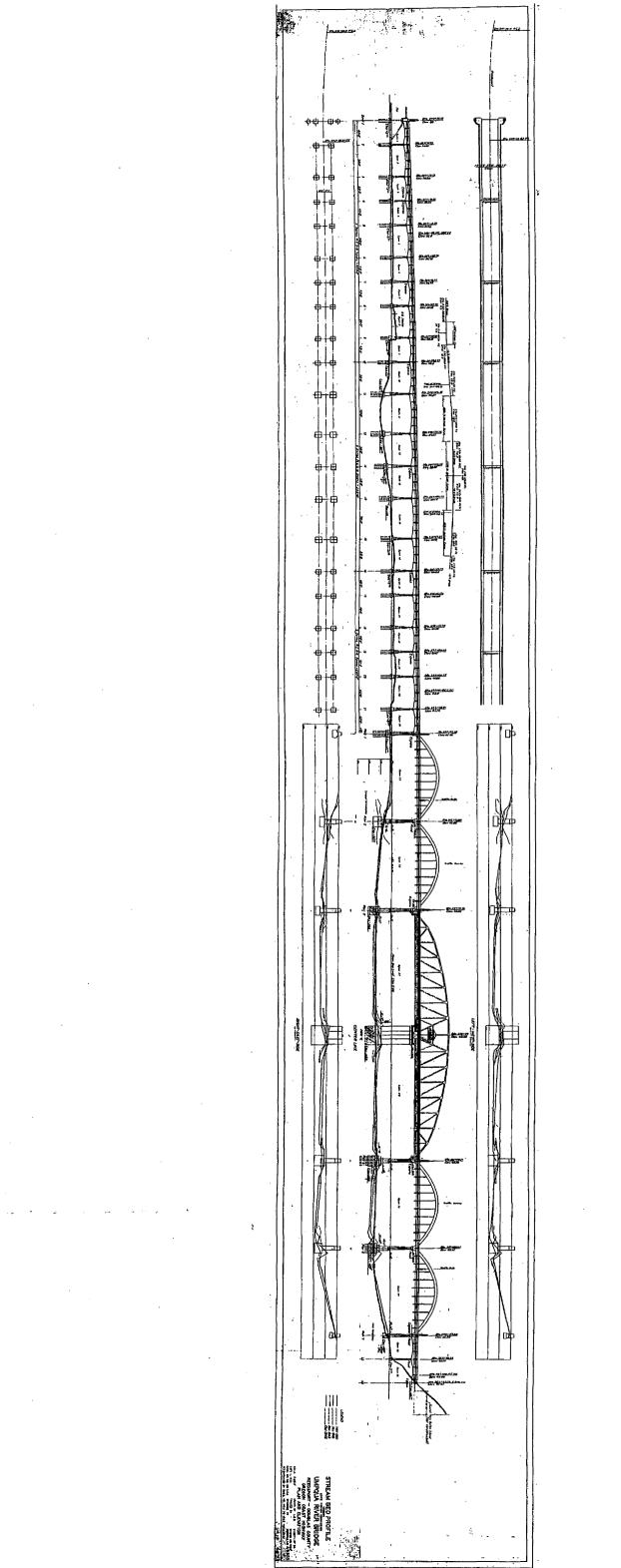
Douglas County, Oregon County and State

## Photographs

James B. Norman, Photographer, June 2003 (Original negatives housed at Oregon Department of Transportation, Salem, Oregon)

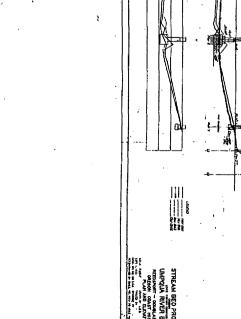
#### **Photographic Description**

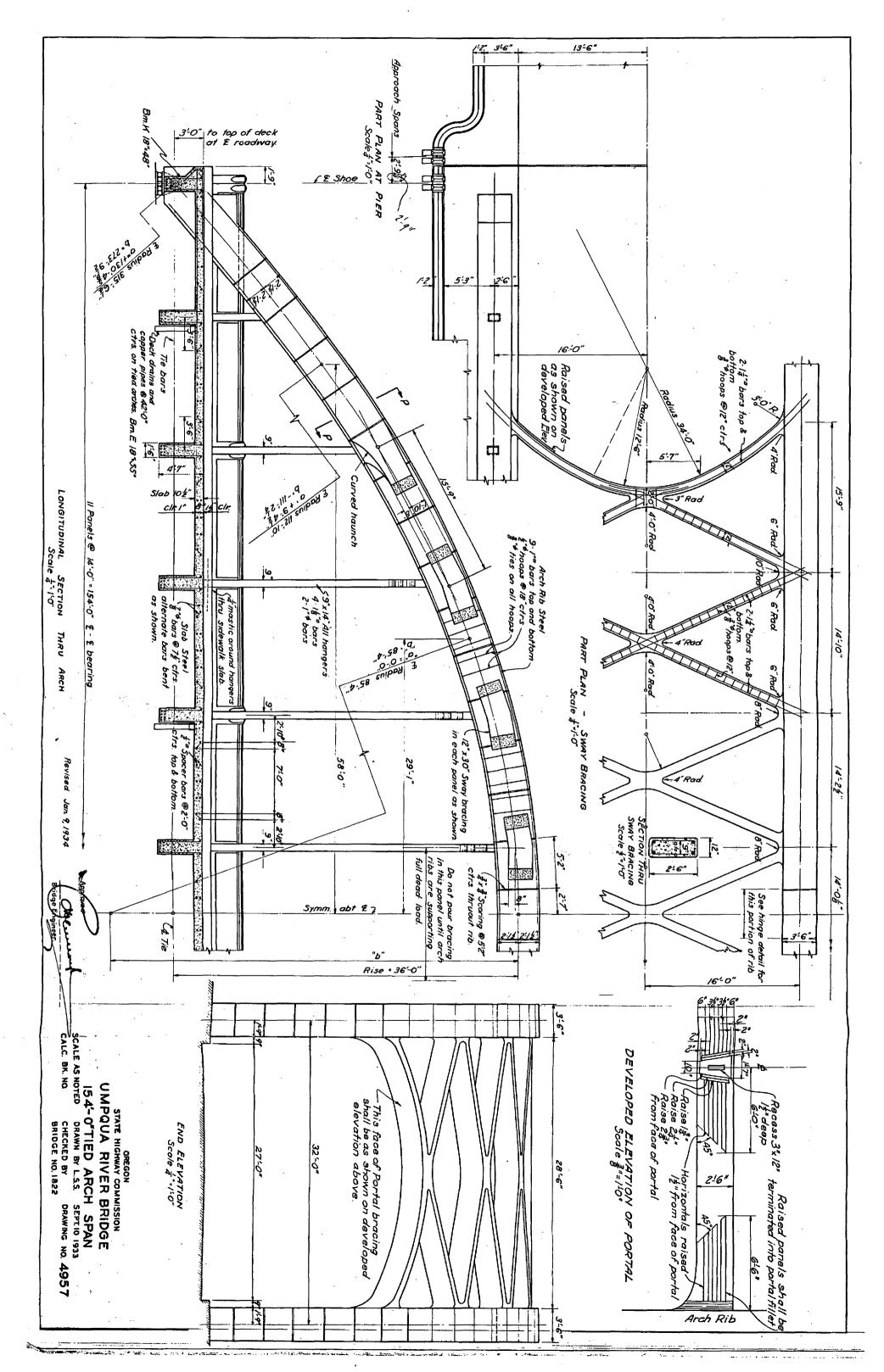
View No.	Description
1	General view of the Umpqua River Bridge, view looking northeast.
2	General view of the bridge, view looking east.
3	General perspective view of the bridge, view looking northeast.
4	General perspective view of the bridge, view looking northeast.
5	General view of the bridge, view looking northwest.
6	General view of the bridge, view looking northwest.
7	Detail view of the truss portal, view looking north.
8	Detail view of the main swing span, view looking northwest.
9	Detail view of the reinforced concrete through truss span, illustrating "X" bracing and concrete hangers. Also visible in view: railing and entrance obelisk, view looking northeast.

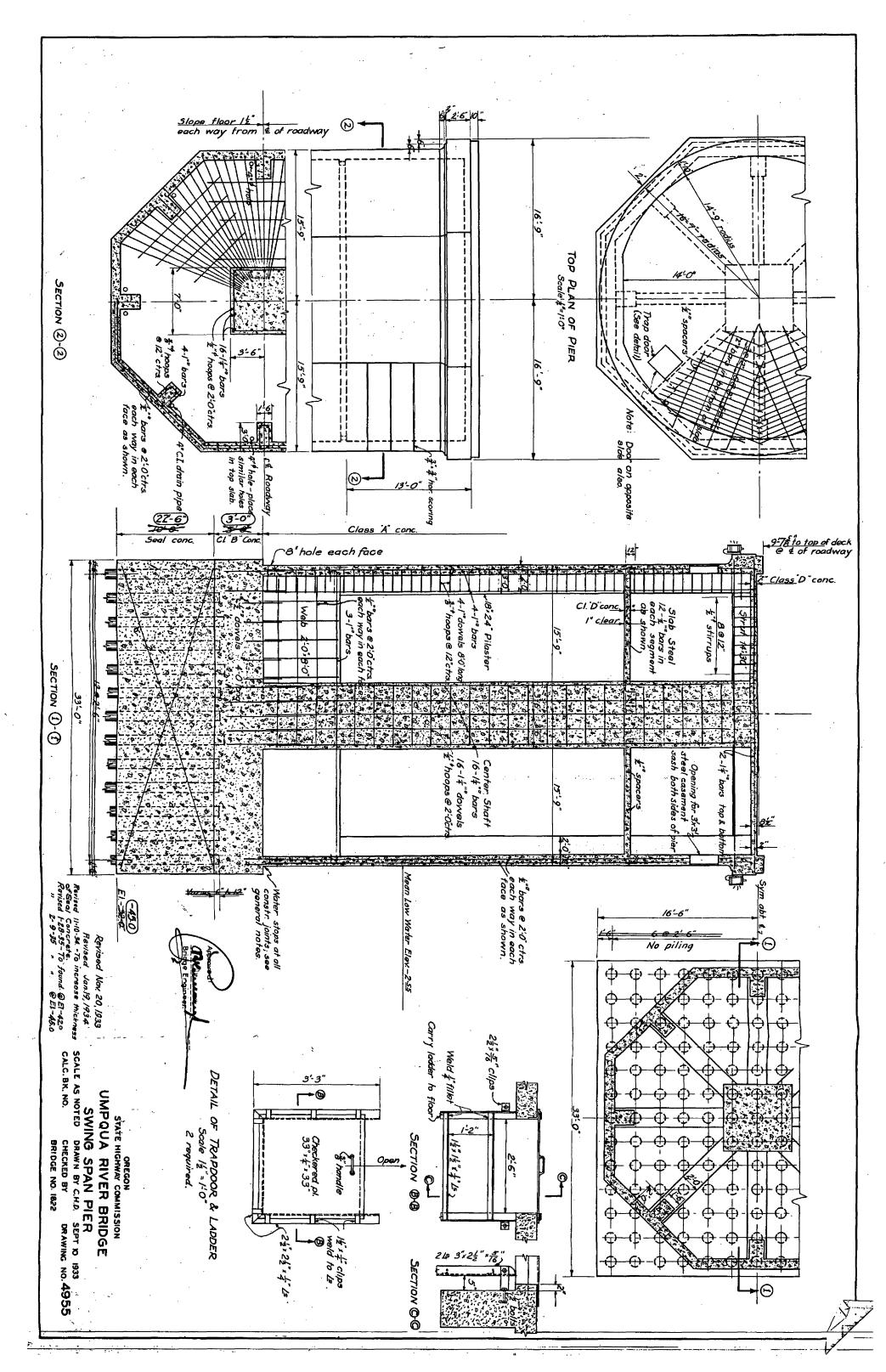


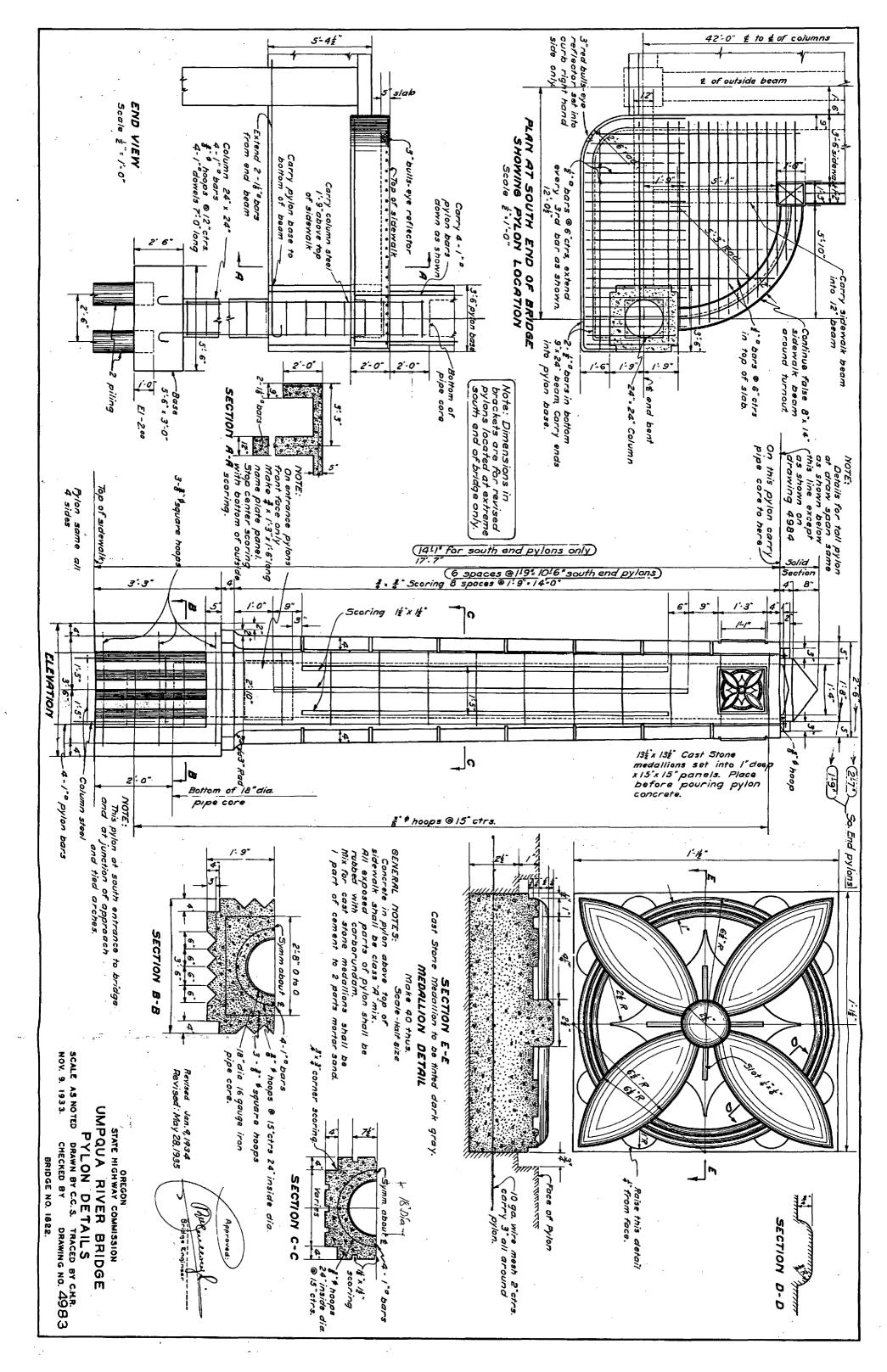


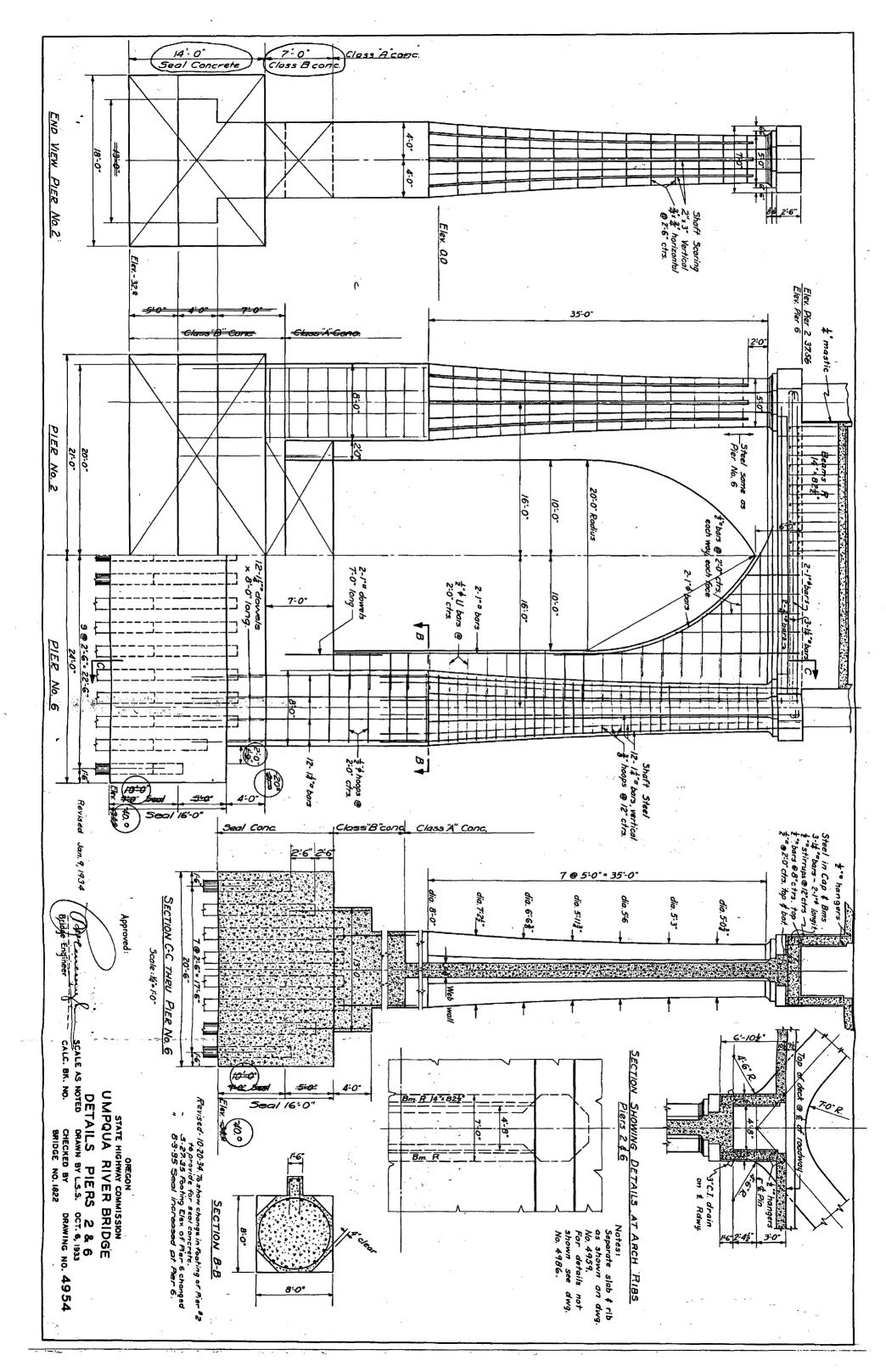


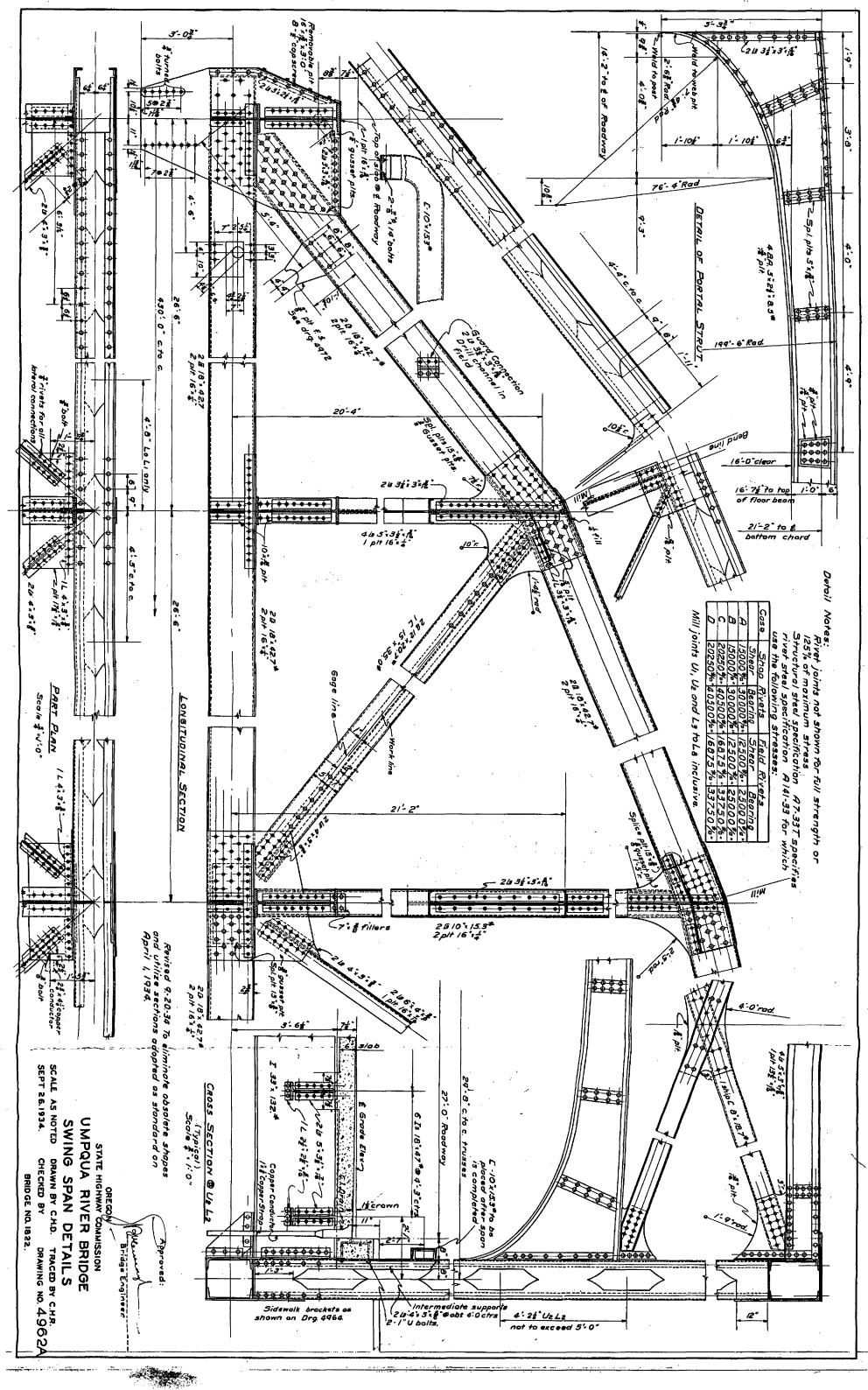


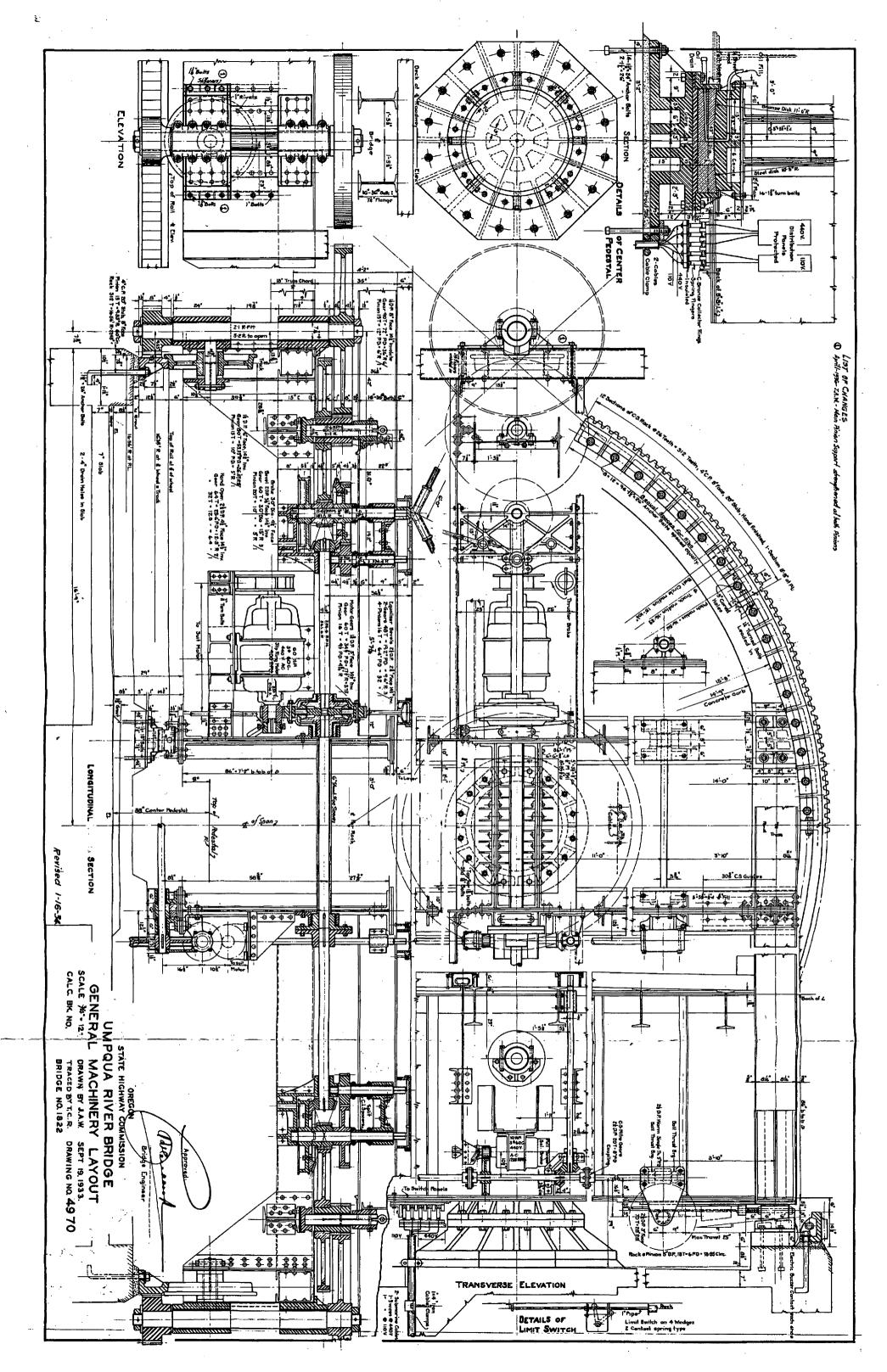


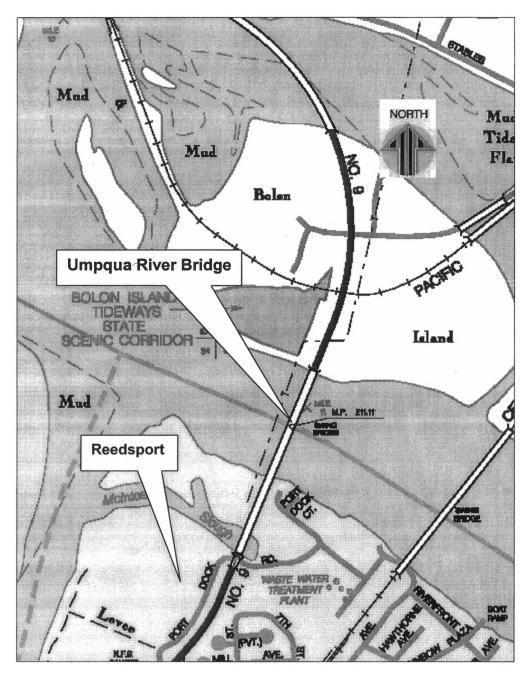












Umpqua River Bridge No. 01822 MP 211.11, Oregon Coast Highway No. 9 Reedsport, Douglas County, Oregon









