

Oregon Department of Transportation

DETERMINATION OF ELIGIBILITY FOR THE NATIONAL REGISTER

Property Name: Old Youngs Bay Bridge #330

Date of Construction: 1921

Address: Warrenton-Astoria Highway (Hwy. No. 9)

County: Clatsop

Crossing Youngs Bay at mile point 6.89

Original Use: Bridge

Current Use: Bridge

Style: Double-leaf bascule drawspan

Theme: Transportation

Statement of Significance:

The Old Young's Bay Bridge #330 was the first movcable span bridge designed by state bridge engineer Conde B. McCullough and is one of only five surviving double leaf bascule bridges in Oregon built before 1941. It qualifies for eligibility for the National Register under criterion b, as an early example of the work of Conde B. McCullough, and criterion c, by embodying distinctive characteristics of a double-leaf bascule drawspan bridge.

Photograph

In my opinion, the property ___ meets ___ does not meet the criteria for listing in the National Register of Historic Places.

Signature of Certifying SHPO Official/Title

Date

Comments/Request for Additional Information:

The Old Youngs Bay Bridge #330 is a drawbridge of the double-leaf trunnion bascule type, the draw giving a clear channel opening of 150 feet. The bridge consists of two 75-foot central cantilevered sections operated by 40 horsepower electric motors and counterweights. Fifty-eight pile trestle secondary spans and ten timber stringer spans carry 1,616 feet of approach roadway to the central span and contribute to an overall structure length of 1,766 feet. Large ornate Art Deco Style concrete and wood approach pylons stand on either side of the roadway at both ends of the structure. There are two 3.5-foot sidewalks. Four small operator's houses are located on the bridge, two at the north and two at the south end of the central cantilevered sections of the bridge. The operator's houses are designed in an Art Deco Style and have segmental arched openings and hipped roofs. They project from the outside of the bridge and are supported by two curved concrete brackets. The bridge has three types of bridge railings. (1) A concrete and timber railing located on the approach spans features concrete horizontal top and base members with vertical decorative wooden balusters placed between the concrete mainposts. (2) A concrete railing with segmental arched openings is located near the operator's houses. (3) A rounded metal tube railing is located on the two cantilevered sections.

The Historic Background

Astoria was founded in 1811 with the establishment of the first fur trading post by John Jacob Astor's Pacific Fur Company making Astoria the oldest continually occupied settlement on the west coast. Overland travel to Astoria was difficult and for many years, virtually all trade, travel, and communication was accommodated by the abundant local waterways. It was not until 1898 that the first railroad was constructed connecting Astoria to the Willamette Valley. The earliest major road building effort in the area was the construction of the Astoria-Salem Military Road, surveyed in 1855-56, and opened in 1858. Unfortunately, the road was nearly impossible to maintain due to erosion and deadfall, and it was abandoned by the 1880s. In 1901, plans were made to build a new road from Astoria to Nehalem Valley to connect with the Nehalem - St Helens road that had opened in 1879. This road, now part of the Nehalem Highway opened in 1909. Construction of the Columbia River Highway between 1913 and 1915 accommodated travel from Seaside at the Oregon coast, through Astoria, to Portland and the major markets of the inland valley. The Roosevelt Coast Military Highway (now the Oregon Coast Highway, 101), begun in 1919, eventually established a continuous route from Astoria to California.

The Old Youngs Bay Bridge #330 was the second bridge to cross Youngs Bay, replacing an older drawbridge at an adjacent alignment on the original route of Highway 26. Old Youngs Bay Bridge #330 was designed in 1919 by Cond B. McCullough, built by Gilpin Construction Company of Astoria and opened to traffic at the end of June, 1921. In October of that year President Warren G. Harding pressed a golden button at the White House in Washington D.C. lowering the draw leaves to formally open the Columbia River Highway connecting Mosier to Seaside via Portland and Astoria. It is the second oldest surviving double-leaf bascule bridge in Oregon, the 1913 Willamette River (Broadway) Bridge #6757 in Portland being the oldest. Bridge # 330 was renamed the Old Young's Bay Bridge when the "New" Youngs Bay Bridge was constructed in 1964 at a new site across Youngs Bay (Smith Point) along the new alignment of Highway 101 (refer to map). The Old Youngs Bay Bridge is one of C.B McCullough's first Oregon bridges. McCullough worked for the Oregon State Highway Department from 1919 to 1946 and is Oregon's most prominent and famous bridge engineer. His best known bridges include the steel arches over the Willamette River at Oregon City and Yaquina Bay at Newport, the concrete arch bridges on the Oregon Coast Highway, the steel cantilever over Coos Bay, and the Rogue River (Gold Beach) Bridge. The bridge was built as part of an improvement project for Highway 30, and Highway 26, and cost \$360,146.86 to build.

Historic Context

Moveable bridges are utilized where the roadway would otherwise obstruct a navigable waterway and impede river traffic. Bascule Bridges are one of four types of moveable bridges; vertical lift, Scherzer rolling lift, and swing being the other three designs. The word "bascule" is French for "seesaw." Bascule bridges are counter balanced cantilevers that swing upwards to open to a vertical position to let vessels pass. Vertical-lift bridges have towers at each end, from which ropes are operated to lift the bridge, like the ash of a window; swing bridges are pivoted at the center

Old Youngs Bay Bridge #330 (Continued)

of the span, and open by turning horizontally. A Scherzer rolling lift bridge is a cantilever with a counterbalance shaped like a quarter of a wheel and lifts by rolling backwards along a track.

The earliest form of the bascule bridge was a flap of framed timber across the moat of a castle, drawn up by chains from inside. Bascule bridges, with one or two spans hinged and counterweighted, are favored for narrow waterways where traffic is heavy. The Tower Bridge (1894) across the Thames River at London is the most famous example of this type of bridge. The first American bascule bridge appeared in its modern form in Chicago in 1893. Famous bascule bridges in the U. S. include the Arlington Memorial Bridge over the Potomac at Washington, D. C. (1932), and the Outer Drive Bridge, a double-deck bascule bridge crossing the Chicago River in Chicago (a span of 260 feet) and a double-leaf bascule bridge (1940) at Lorain, Ohio (a length of 333 feet).

In Oregon, only twenty-two moveable span bridges remain, 12 of which were constructed before 1941. Only one of Oregon's moveable span bridges, the 1917 Columbia River (Interstate Northbound) Bridge #1377A, a steel through truss (Pennsylvania-Pelit) has been listed on the National Register of Historic Places.

Seven additional moveable structures were identified in Historic Highway Bridges of Oregon as historically significant and have been determined eligible for the National Register by the State Historic Preservation Office (SHPO) they include:

- The 1910 Willamette River (Hawthorne, Portland) Bridge #2757 a vertical lift
- The 1912 Willamette River (Steel, Portland) Bridge #2733, a steel through truss (Pratt) vertical lift
- The 1913 Willamette River (Broadway, Portland) Bridge #6757, a double-leaf bascule
- The 1922 Coquille River Bridge #598, a swing span
- The 1926 Willamette River (Burnside, Portland) Bridge #511, a double-leaf swing span.
- The 1936 Siuslaw River (Florence) Bridge #1821E, a steel double-leaf bascule
- The 1936 Umpqua River (Reedsport) Bridge #1822, steel through truss (Parker) swing span.

Five other moveable bridges built prior to 1941 were listed as reserve pool bridges in Historic Highway Bridges of Oregon, they include:

- The 1913 Willamette River (Van Buren Street, Corvallis) #2728 a swing span
- The **1921 Old Youngs Bay #330, a double leaf bascule**
- The 1924 Lewis and Clark River #711, a single leaf bascule
- The 1939 Columbia River (White Salmon) #6645, a steel through truss, vertical lift
- The 1931 Isthmus Slough #1132F double leaf bascule.

The reserve pool bridges were not considered eligible for the National Register in 1985, but with the loss six historic moveable bridges since then, the four reserve pool bridges are now considered significant because of the rarity of this resource type. The bridges that were replaced between 1985 and 1999 include:

- The 1933 John Day River #1827, swing span
- The 1938 Walluski River #2320 swing span
- The 1921 Coquille River #598 swing span
- The 1934/1991 South Slough #1940 bascule
- The 1939 Catching Slough #2278C swing span
- The 1921 Nehalem #574 swing span.

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Sources:

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Researcher:

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Date:

July, 1999