Oregon Department of Transportation

REQUEST FOR DETERMINATION OF ELIGIBILITY

Property Name Cummins Creek Bridge (#1182)

Date of Construction

1931

Address

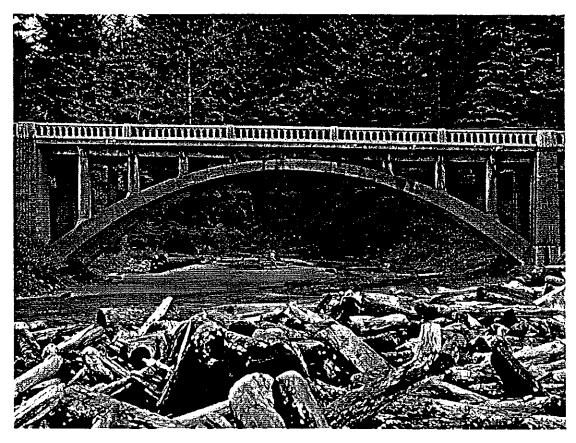
Oregon Coast Highway, M.P. 178.35

County

Lane

Primary Significance

Thematic association with reinforced concrete deck arch bridges of the Oregon Coast Highway



Description: The Cummins Creek Bridge (#1182), built in 1931, spans Cummins Creek on the Oregon Coast Highway. The structure is a reinforced concrete, open spandrel, deck arch span, with a 115-foot rib-type deck arch main span, and two reinforced concrete girder approach spans. The total bridge length is 185 feet. The design of the bridge remains intact, with the exception of the introduction of a two-tube steel railing to the inside of the pedestrian walkway. The parabolic configuration of the main arch span has a low rise, and it was designed to simulate the appearance of a segmented arch. The blocks, or segments, are achieved by rib scoring which is carried around the arch rib, with an incised depth of 5/8". Other characteristics of the Cummins Creek Bridge (#1182) include horizontal beam walls between spandrel columns, fluted main piers, spandrel columns, and railing posts. The balustrade railing has small semi-circular arched openings, between fluted posts. The cantilevered deck and balustrade railings are supported by large brackets, which spring from the spandrel columns. The overall aesthetic of the bridge is one of expressed horizontal and vertical structural elements, with minimal decorative elaboration.

Significance/Context: See Page 2	Location: See Attached Map
	meet the criteria for listing in the National Register of Historic Places.
Signature of Certifying SHPO Official/Title	Date
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Comments/Request for Additional Information:

Significance: Constructed in 1931 as an integral structure along the Oregon Coast Highway, the Cummins Creek Bridge (#1182) is historically significant under Criterion A for its association with the development and completion of the Oregon Coast Highway (US 101). The coast highway, which began construction in 1919, was completed in the mid-1930s as a major public works project to establish an uninterrupted transportation route from California to Washington. The effort was aided by the PWA-sponsored Oregon Coast Bridges Project which provided funds for the construction of modern bridges to replace the existing slow, cumbersome ferries which serviced the crossings of the larger bays, rivers and estuaries. The completion of this route 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.

The Cummins Creek Bridge (#1182) has some significance under Criterion C as an example of 1930's-era, single-span reinforced concrete deck arch bridge engineering, possibly designed by the Bureau of Public Roads. Although the plans are signed by Oregon State Bridge Engineer, Conde B. McCullough, the bridge shares many common design features with the standardized concrete deck arch bridge designs developed by the Bureau of Public Roads and distributed to state highway commissions across the United States during this period. The Cummins Creek Bridge (#1182) does not exhibit the common architectural embellishment associated with the arch bridges designed by the internationally-recognized bridge engineer, Conde B. McCullough (See context discussion below).

Context: The Cummins Creek Bridge (#1182) is located on the Oregon Coast Highway, Oregon Route 9, Lane County, within the boundaries of Neptune State Park. The bridge has a high level of integrity with regard to its setting, design, materials, and association.

Tom Lillebo constructed the Cummins Creek Bridge (#1182) in 1931, under contract with the Bureau of Public Roads, the State Highway Commission, and Lane County. The Bob Creek and Gwynn Creek bridges were let under the same contract as the Cummins Creek Bridge, and all three structures were built for a total cost not exceeding \$35,000. Portions of the coast highway under construction during 1931, and in the vicinity of the Cummins Creek Bridge (#1182), include the Heceta Head section being constructed by the Forest Service, and the Cape Creek Tunnel and bridge, which were being constructed under the supervision of the Bureau of Public Roads. These sections were considered to be extremely difficult to construct, extremely costly, -and extraordinarily scenic. On these sections of the coast highway, every opportunity to take advantage of the natural scenic beauty offered by the rugged Oregon coastline was utilized. The section of highway encompassing the Cummins Creek Bridge (#1182), from the Lincoln/Lane County line and eight miles south, can be characterized as having "few curves of more than minor importance". In comparison with the other projects in the vicinity, the bridge over Cummins Creek was considered a minor stream crossing.

When considering the context of pre-1941 reinforced concrete rib-type deck arch bridges in Oregon, the Cummins Creek Bridge (#1182) has few distinguishing characteristics in terms of its historical significance and engineering innovation. The overall aesthetic of the Cummins Creek Bridge (#1182) is one of expressed horizontal and vertical elements, with minimal decorative elaboration. The Cummins Creek Bridge (#1182) shares many design features with other McCullough bridges, including a parabolic, rib-type main arch span, open spandrels, thin spandrel columns, cantilevered deck supported by large brackets, and ornate balustrade railings. However, aesthetic design elements such as arched fascia walls between spandrel columns, and bush-hammered inset panels, which appear on most of the reinforced concrete rib-type deck arch spans of this period, are conspicuously absent from this bridge. Although McCullough has lent his signature to the bridge plans, his "signature" design elements are missing. The lack of architectural embellishment of the Cummins Creek Bridge (#1182) seems to be consistent with other bridges built primarily through funding provided by the Bureau of Public Roads, in the state of Oregon, and elsewhere in the United States.

Currently, There are 26 single-span reinforced concrete rib-type deck arches within the Oregon State Highway System. Six of the single-span bridges are listed on the National Register of Historic Places and eight have been determined eligible for the National Register. Seven single-span bridges are in the statewide reserve pool list of interesting bridges and five are considered ineligible for the National Register. Based on the application of architectural and aesthetic treatment, and engineering innovation, a number of more historically significant and visually interesting examples of single span, reinforced concrete rib-type deck arch construction exist within the state, many of which are located along the Oregon Coast Highway.

The broader context of all reinforced concrete rib-type deck arches within the Oregon Highway System includes six multiple-span bridges, in addition to the 26 single span bridges discussed above. Two of the multiple-span bridges are listed on the National Register, two more are eligible for the National Register, and two are ineligible for the National Register. In general, the multiple-span reinforced concrete rib-type deck arches are even more architecturally interesting and historically significant than the single-span arches of this time period. In the case of the Cummins Creek Bridge (#1182), its construction was over-shadowed by the construction of The Rogue River (Gold Beach) Bridge (#1172), a reinforced concrete deck arch structure having seven 230-ft. open-spandrel-type arches. The Rogue River (Gold Beach) Bridge (#1172), also constructed in 1931, was the first concrete-arch bridge built in the United States utilizing the Freyssinet Arch. In addition, The Rogue River (Gold Beach) Bridge (#1172) features elaborate architectural detailing, with elements such as fluted spandrel columns, arched fascia walls, bush-hammered inset panels, dentil banding, ornate arched balustrade railing, and large, rectilinear Art Deco entrance pylons.

Considered within the entire context of reinforced concrete rib-type deck arches within the Oregon Highway System, the Cummins Creek Bridge (#1182) assumes the role of a basic, utilitarian highway structure, typical of its period.

Sources:

Smith, Norman, and Dykman. Historic Highway Bridges of Oregon. OHS Press, Portland, 1989.

Condit, Carl W. American Building Art. Oxford University Press, 1960.

Hadlow, Robert W. Wilson River Bridge at Tillamook, 1931. HAER No. OR-39, 1990.

McCullough, Conde B. "Design of a Bowstring-Arch Bridge," Engineering News Record, August 27, 1931.

McCullough, Conde B. "Designing the First Freyssinet Arch to Be Built in the United States," <u>Engineering News</u> <u>Record</u>, November 26, 1931.

Deloney, Eric. Landmark American Bridges, American Society of Civil Engineers, New York, 1993.

The Siuslaw Oar, Newspaper for Florence, Lane County, Oregon, 1930-1932.

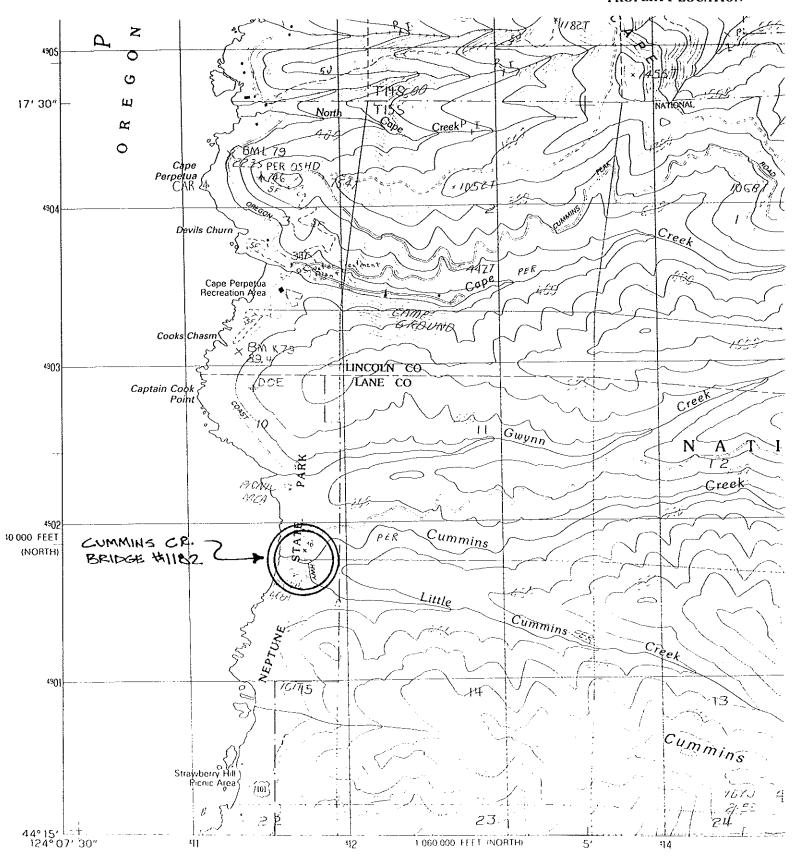
Minutes of the Oregon State Highway Commission, 1930-1932.

Researcher

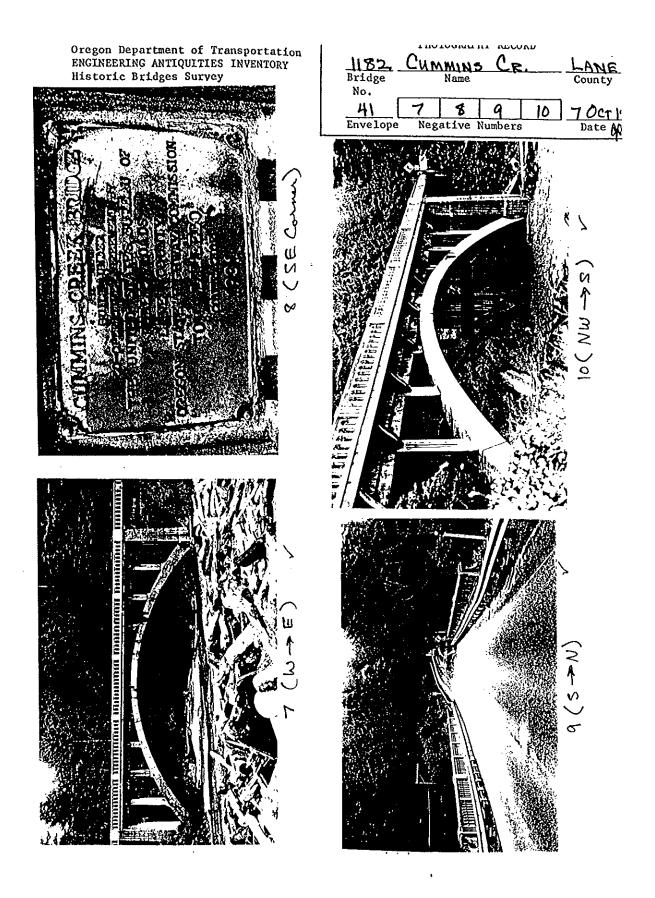
Leslie Schwab, Cultural Resources Specialists, ODOT

Date May, 2000

PROPERTY LOCATION

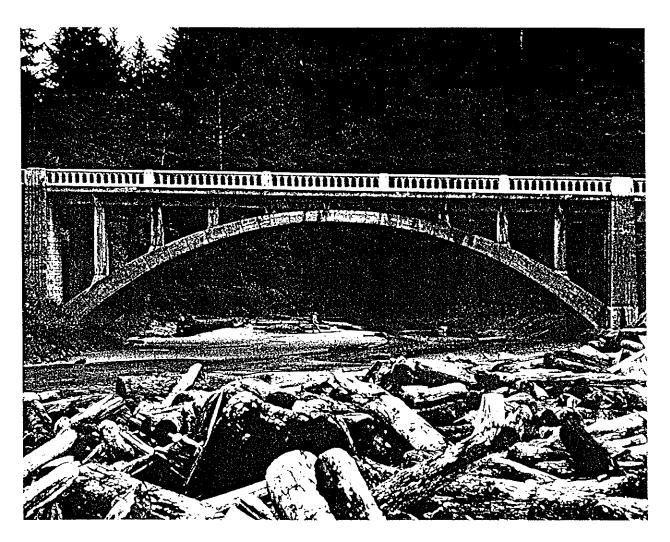


Yachats Quadrangle 7.5 Minute Series, USGS



APPENDIX

CONTEXTUAL RESOURCES UTILIZED TO DETERMINE ELIGIBILITY



Cummins Creek Bridge Structure Number 1182 Oregon Coast Hwy. 9, M.P. 178.35 Lane County, near Yachats Constructed - 1931 Reinforced Concrete Deck Arch Ownership - State (OTC)

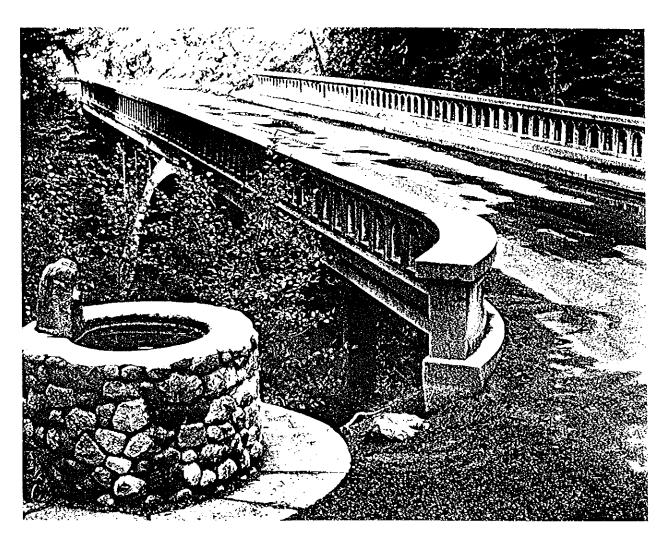
C.B. McCullough designed this bridge, and Tom Lillebo was the contractor. Located about four miles south of Yachats on the Oregon Coast Highway, the bridge spans Cummins Creek at Neptune State Park. The bridge's total length is 185 feet, and the main span is a 115-foot reinforced concrete rib arch. The arch is an open spandrel type, exhibiting a low rise. The arch appears to be segmented because of block recessed lines. The main piers and spandrel columns are fluted, as are the railing posts. The railing is supported by curved brackets and consists of small semi-circular arched openings.



Salmon River Bridge Structure Number 4192 Salmon River Hwy. 39, M.P. 6.23 Lincoln County, near Rose Lodge

Constructed - 1930 Reinforced Concrete Deck Arch Ownership - State (OTC)

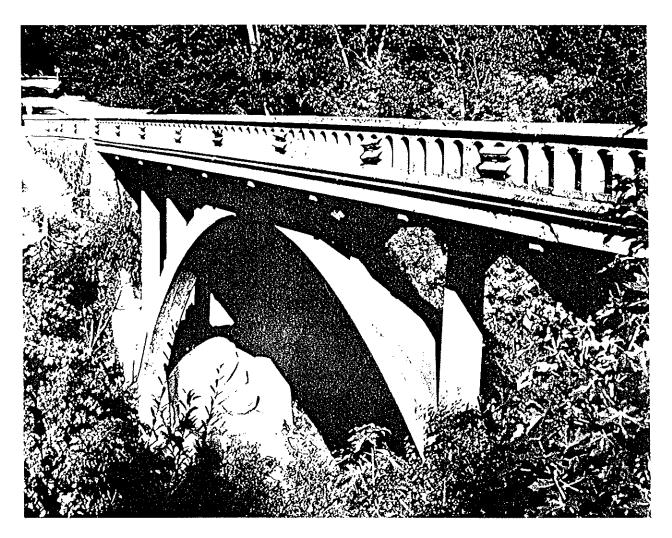
Constructed by the U.S. Bureau of Public Roads (now, Federal Highway Administration), this arch is distinctive for the manner in which the main piers and rib members are skewed to allow for passage of the Salmon River. The main span is an 80-foot open-spandrel, rib-type reinforced concrete deck arch. The railing is ornamental, and the spandrel columns curve at the top to form the decorative brackets which support the sidewalk and railing. The bridge was designed by H.R. Angwuir, Senior Bridge Engineer, U.S. Bureau of Public Roads, San Francisco.



S. Fk., Hood R. (Sahalie Falls) Bridge Structure Number 1072 (old no.) Road #3545, Mt. Hood Nat. Forest Hood River County, near Meadows Ski Area

Constructed - 1928
Reinforced Concrete Deck Arch
Ownership - U.S. Forest Service
Mount Hood National
Forest

The Sahalie Falls Bridge was designed and constructed by the U.S. Bureau of Public Roads (now, Federal Highway Administration). The main span is an 82-foot open-spandrel, rib-type, reinforced concrete deck arch. There is a pedestrian area at the east end of the bridge, providing viewpoints of Sahalie Falls, and a stone masonry water fountain. The bridge is on a bypassed segment of the old Mt. Hood Loop Highway.



N. Fork, Rogue River (Prospect) Bridge Structure Number 29C281 Mill Creek Dr., County Road 797 Jackson County, near Prospect

Constructed - 1923 Reinforced Concrete Deck Arch Ownership - Jackson County

This 71-foot open-spandrel, rib-type, reinforced concrete deck arch was designed and constructed under the direction of the U.S. Bureau of Public Roads (now, Federal Highway Administration) and replaced a timber Howe-truss covered bridge at the site. The bridge was built on the old Crater Lake Highway and was quite ornate when constructed. The original lampposts and lanterns which adorned the decorative balustrade railings have been removed, and the railings are obscured by a galvanized guard rail. The stone masonry abutments, the bracketing, and decorative detail on the arch contribute to the appearance of the bridge.



Clackamas River (Estacada) Bridge Structure Number 2208 Woodburn-Estacada Hwy. 161, M.P. 33.40 Clackamas County, Estacada

Constructed - 1936 Reinforced Concrete Deck Arch Ownership - State (OTC)

The main span of this 371-foot structure is a 140-foot open-spandrel, rib-type reinforced concrete deck arch between eight concrete deck girder approach spans. The main arch has a very high rise. The roadway is skewed on the structure. The structure was designed by C.B. McCullough and is embellished with a decorative precast concrete railing, elaborate projecting brackets, and lean, tall spandrel columns. This bridge replaced a timber House truss covered bridge at this site. The arch bridge was constructed by the Mountain States Construction Company.