

COUNTY LINE BRIDGE
(Ash Road Bridge)
Spanning St. Joseph River at SR 291,
0.6 mile south of U.S. 20
Osceola Vicinity
Elkhart County
Indiana

HAER NO. IN-68

HAER
IND
20-OSCE.V,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
U.S. Custom House
200 Chestnut Street
Philadelphia, PA 19106

HISTORIC AMERICAN ENGINEERING RECORD

COUNTY LINE BRIDGE
(Ash Road Bridge)

HAER NO. IN-68

HAER
IND
20-OSCEOLA
1-

Location: Over the St. Joseph River on State Road 219, 0.6 miles south of US 20. On the county line between Elkhart County to the east and St. Joseph County to the west. Osceola vicinity
Elkhart County
Indiana
UTM: 16.578260.4614420
QUAD: Osceola, Ind.

Date of Construction: Begun 1929, completed, 1930.

Engineer: William S. Moore

Present Owner: Indiana Department of Transportation
Indiana Government Center, 100 North Senate
Indianapolis, Indiana 46204

Present Use: Vehicular and pedestrian bridge.

Significance: The County Line Bridge, in the vicinity of Osceola, Elkhart County, is significant as an example of early 20th century reinforced concrete bridge design and construction. It utilizes known design elements in an aesthetically pleasing and structurally interesting manner. It also represents an unusual example of a mutual project between two county councils, in which funding, contracting and design decisions were arranged through a special joint board. Further, it is the work of a master, the South Bend engineer, William S. Moore.

In discussing the significance of this bridge, Patrick R. Ralston, Indiana's State Historic Preservation Officer has said: "In our opinion, the SR 219 bridge over the St. Joseph River in Elkhart County is of local significance. This three-span, open-spandrel concrete arch bridge with its long, filled causeway is architecturally significant in the Elkhart County-St. Joseph County area."

COUNTY LINE BRIDGE
(Ash Road Bridge)
HAER NO. IN-68 (page 2)

Project Information:

A rehabilitation project will be undertaken in 1994 by INDOT which will affect the bridge's appearance. A Memorandum of Understanding with the Advisory County on Historic Preservation has stipulated that HAER documentation be prepared, and archival quality photographs also submitted to the Indiana Div. of Hist. Preservation and Archaeology.

Recorded by Camille B. Fife and Thomas W. Salmon II,
of The Westerly Group, Inc., RR 1 Box 141,
Farmersburg IN 47850.

Description:

The County Line Bridge, which crosses the St. Joseph river in a north-south direction is located in a mixed-use area of residential and commercial structures. The river banks on the south side of the bridge are reasonably flat, with woods and residential property on the east or downriver side and a marina for recreational boats on the west or upriver side. On the west side, south of the dock area, the bank rises steeply to the elevation of the bridge approach. The northeast bank is heavily wooded and the bank rises sharply. The northwest bank also rises somewhat steeply but is cleared and contains rather evenly spaced residences which face the river and the marina.

State Road 219, which is also known locally as Ash Road, forms the road bed of the county line bridge. This bridge, a reinforced concrete, three-span structure is composed of three elliptical arches and a long concrete-encased causeway on its south end. The concrete spandrels are open on the east and west facades as well as on the two matching concrete cross walls which support the floor system. The three clear spans measure, from south to north respectively, 84 feet, 87 feet and 90 feet. The south approach to the bridge is comprised of a "retained" fill with retaining walls approximately 185 feet in length. The roadway has two 12 foot lanes, 8 foot curb offsets and two 5 foot sidewalks. The total outside width of the bridge is 53 feet.

There is no soffit as the underside of the bridge deck is exposed. The concrete spandrels give the structure an airy appearance. The bridge is quite elegant; its arch rings spring from a point near the water line at the cut waters (ice breakers). The latter are semi-circular in form rather than pointed, adding to the aesthetic appeal of the bridge (although not as effective as breakwaters.)

The concrete abutment on the north end and the concrete causeway on the south are simple coffered facades which directly exhibit their lumber formwork ghosts, as well as the variegation in the concrete aggregate. The entire bridge is capped with a reinforced concrete balustrade, terminal newels and concrete rail. The spaces between the balusters is composed as a round headed slot. The central piers and the newels all have preformed quirks on the faces. This simple ornament is effective as it causes heavy shadows to accentuate the vertical dimension of those members.

Lamp standards occur at regular junctures along the span of the bridge. Octagonal in section, they have been cast with a pronounced entasis and are of exposed tan pebble, foundry slag and mica aggregate. These masts are

topped with a cast bronze ferrule. The open work on the ferrules is articulated at the four cardinal points with overlapping heart shaped applicades, also of bronze. This terminal casting has been throated down from the octagonal to a circular form, to support a round receiver for the globe-shaped glass lenses. All of the lenses, the lamps and the lamp sockets are missing.

Reinforced concrete bridges with three to four elliptical arches such as the county line bridge on SR 219, seem to have been popular in Indiana during the early decades of the 20th century. Very similar structures were built over the White River at Emerichsville and at Peru (Wayne Street Bridge) In Indianapolis, two were to be found, over the White River at Morris Street and on Northwestern Avenue.

The county line bridge on SR219 forms a north-south transportation link between two important east-west roadways, US20 and US 33. Both of the busy traffic arteries connect the cities of Mishawaka (to the west) and Elkhart (to the east). Ultimately, these roadways bring together the two county centers of Elkhart (for Elkhart County) and South Bend (for St. Joseph County). The bridge on SR219 is the only crossing over the St. Joseph River between the cities of Elkhart and Mishawaka, located on a state highway. When it was constructed in 1929-30, the bridge was owned by the counties which built it. Prior to 1936, the roadway was gravel. It was paved in 1936, and by that year had become the property of the Indiana Department of Transportation. Rehabilitation to the roadway, in the form of a bituminous overlay of asphalt, occurred in approximately 1972.

Historical Information:

In late November of 1928, the Board of Commissioners of St. Joseph County expressed their willingness to adopt a concurrent resolution with the Board of Commissioners of neighboring Elkhart County, to jointly plan and build a new bridge across the St. Joseph River. Thus began the process which ultimately resulted in the construction of the SR 219 Bridge. In December, the joint Boards met and elected one of their number, Mr. Fred J. Cook, (a commissioner from St. Joseph County) the chairman of the joint boards for the construction of the bridge. William S. Moore was appointed engineer and superintendent of construction. His compensation, to be paid during construction, was proposed to be "3% for drawing the plans and making specifications" plus an additional 2% for superintending construction, providing,

of course, that the appropriate sale of bonds was made. ¹

Mr. Moore was authorized to make a survey, prepare an estimate, along with appropriate plans and specifications, at another meeting in January of 1929, with instructions to have them available by March. In a quirk of state law, the commissioners could not approve bridge project plans in the warmth of the conference room, rather, they were required to plan and attend a joint meeting of all members at the bridge site (a requirement which undoubtedly hastened the approval process, especially during the winter months.) This meeting duly occurred, on April 25, and Mr. Moore's plans and specifications were quickly approved. ²

As the spring passed into summer, construction plans for the bridge moved forward. On July 22, after appropriate notices had been placed in South Bend and Indianapolis newspapers, the formal bid opening was held. The lowest bidder was found to be the Reith Riley Construction Company, with a bid of \$157,420. The total costs of the improvement, including the engineer/superintendent's fee, was held to be \$175,000. Both counties would bear the burden of the bond issue, but in relative proportion to each entity's assessed valuation. Thus, St. Joseph County's share at .72947 (%) was nearly three times larger than Elkhart County's .27053 (%) of the costs. ³

In February and March, the South Bend News Times, had run reproduction of the engineer's proposed bridge and a photograph of the old two-span pratt through truss iron bridge, which the planned concrete improvement would replace, calling the latter an "ancient iron structure". By August, The South Bend Tribune reported that St. Joseph County had issued \$130,000 in bonds to pay for its portion of the bridge. A month later, the same journal published a photo of the nearly demolished iron bridge, noting that construction had necessitated the closing of the Jefferson highway at Ash road. ⁴

¹ St. Joseph County Commissioners Record, Vol. 26, Feb.1928-Dec. 1930, pp. 189, 199.

² Ibid., p. 296 ½.

³ Ibid, p. 390-91.

⁴ South Bend News Times, February 27 and March 5, 1929; South Bend Tribune, August 18, 1929 and September 17, 1929. (Collection of the South Bend Public Library)

The construction of the new concrete structure was not complete for nearly a year, perhaps delayed by weather and financial conditions. A photograph, showing the structure nearly finished appeared in the newspaper the following September. ⁵

The county line bridge on SR 219, was only one of many transportation and engineering projects that involved the talents of engineer William S. Moore. During his long career in the South Bend area, he designed many such structures, as well as water and sewer systems, the reservoir in Leeper Park, as well as area real estate developments including Ridgedale in Twyckenham Hills, Wedgewood, Miami Trails, Edison Park and East Gate. A native of Irvington (now part of Indianapolis), he received undergraduate and master's degrees in engineering from Purdue University.

In 1898 he moved to the South Bend area and served in various city engineering capacities and later as City Engineer for both South Bend and Mishawaka. For two years, from 1915-1917, he served as City Engineer for Grand Rapids, Michigan, then was appointed engineer to Indiana's first State Highway Commission. By 1922 he had returned to the South Bend area where he established his own engineering firm, maintaining his practice until 1959, when he retired. When he died, on October 21, 1969, many tributes to his contributions to his profession and to his community were expressed. In 1976, one of South Bend's fourteen bridges, the Logan Bridge, was renamed in his honor. The bridge, which had been dedicated in 1914, was an early product of his engineering skill. ⁶

Bibliography:

Tyrrell, Henry Grattan, C.E., Artistic Bridge Design, a systematic treatise on the design of modern bridges according to aesthetic principles, Chicago, Myron C. Clark, 1912.

⁵ South Bend News Times, September 14, 1930 - although this clipping may be mismarked, another reference, in the South Bend Tribune of November 8, 1954, also indicates that the County Line Bridge was opened in 1930. (collection of the South Bend Public Library)

⁶ South Bend Tribune, October 21, 1969 and July 18, 1976. (collection of the South Bend Public Library)

COUNTY LINE BRIDGE
(Ash Road Bridge)
HAER NO. IN-68 (page 7)

Hool, George A., S.B. and Kinne, W. S., B. S., Reinforced Concrete and Masonry Structures, New York, McGraw-Hill Book Company, 1924.

Indiana Dept. of Transportation, Design Study Report for the State Road 219 (Ash Road) Bridge over St. Joseph River, Structure No. 219-20-6085B, Indianapolis, 1992.

Johnson, John B., C.E., The Materials of Construction, a treatise for engineers on the strength of engineering materials, New York, John Wiley & Sons, 1912.

Primary Sources: The St. Joseph County archives, and other local collections. The collection of the Allen County South Bend Public Library, includes both scrapbooks of clippings about bridges and newspapers on microfilm. Note: According to the best available information, Mr. Moore's drawings for this bridge are still extant and in the collection of the Lang-Feeney Engineering firm, 715 South Michigan, South Bend, Indiana. Mr. Berny Feeney of this firm has been contacted, but the drawings have not been made available for photography. However, a complete set of 14 prints is on file at the INDOT. These prints have been photographed for this submission.