

Yellow River Bridge (Cobban Bridge)
Spanning Chippewa River

HAER No. WI-28

Chippewa County
Wisconsin

HAER
WIS,
9-ART,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
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HISTORIC AMERICAN ENGINEERING RECORD

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(Cobban Bridge)

HAER No. WI-28

Location: County Trunk T spanning the Chippewa River,
Chippewa County, Wisconsin

UTM: 15.640910.4996170
Quad: Crescent

Date of Construction: 1908; erected in new location - 1918/1919

Manufacturer: Modern Steel Structures Company

Present Owner: State of Wisconsin

Present Use: Vehicular traffic

Significance: The Modern Steel Structures Company of Waukesha constructed the Yellow River Bridge across the Chippewa River in 1908. The firm, incorporated in 1900, developed the most modern and complete steel structural plant in the West. Between 1916 and 1918, the Wisconsin-Minnesota Power & Light Company built a hydroelectric dam four miles downstream from the bridge, putting the site under water. The townships of Eagle Point and Arthur arranged to have the 486-foot span dismantled and re-erected 15 miles upstream near the village of Cobban. The Cast Stone Construction Company, in Eau Claire, installed the new concrete substructure. Crombly and Thailacker, a Milwaukee bridge-building firm, apparently erected the steel work. The Yellow River Bridge is the oldest of four Pennsylvania truss bridges remaining in Wisconsin.

Historian: Diane Kromm
Wisconsin Historic Bridges Recording Project
Summer 1987

In November 1907, the Chippewa County Board of Supervisors considered replacing the existing iron Yellow River Bridge, spanning the Chippewa River between the townships of Eagle Point and Anson. For unknown reasons the local residents assigned the name Yellow River Bridge to the span, although it was located at least one mile north of the Yellow River. The supervisors authorized the bridge committee to advertise for bids and enter into a contract to repair or rebuild the structure. Members of the Chippewa Falls Common Council refused to assist in paying for the reconstruction of the bridge, claiming that the county owned it and was responsible for its maintenance. Because the city maintained its own bridges, the district attorney supported their refusal. At the same session, the supervisors decided to rebuild the superstructure, appropriating \$15,000 toward the project. The general fund contained \$5,000, the balance to be raised from county taxes.¹

The county bridge committee received five bids for the construction of the Yellow River Bridge. They awarded the contract to the Modern Steel Structural Company of Waukesha, Wisconsin, for submitting the lowest bid, \$12,744. A newspaper columnist claimed "the bidding was decidedly sharp and some representatives became disgusted and left."² A few years earlier, the Modern Steel Structures Company had erected the Chippewa River Bridge in Chippewa Falls. They agreed to build a two-span steel bridge, to be completed by the following spring. In March, the county supervisors authorized the bridge committee to dispose of the iron in the dismantled bridge and put the proceeds into the county treasury. On March 30, 1908, the committee accepted the completed bridge.³

Minor complications developed that required the county supervisor's attention. In May, they authorized the bridge committee to fix the center piers, so the tubulars would be less susceptible to damage from ice and logs. One year later, the supervisors passed a resolution authorizing the town of Anson to be responsible for maintaining the east side approach (except for the masonry) and the town of Eagle Point to repair the west side approach, if necessary. The following year, they expressed concern that surplus water would damage the northwest wing wall. The town of Anson had leveled off a hill, causing additional water flow. The supervisors considered asking township officials to construct suitable drains to divert the water. In 1910, the south and west piers and approach in the town of Eagle Point required urgent repair. The county supervisors allocated \$2,200, eventually increasing the amount to \$2,779.97 to cover additional costs. Three years later, the north pier required \$3,000 worth of repairs. In 1914, they spent \$500 on further maintenance.⁴

Beginning in 1915, a chain of events developed that would force the relocation of the Yellow River Bridge. The Wisconsin-Minnesota Light & Power Company proposed to build a dam across the Chippewa River, approximately three miles above Chippewa Falls. Since the rising water would form a large lake, the power company offered to purchase the affected real estate and assist the

county in relocating the highways. For example, if the county would relocate Highway TT, the Wisconsin-Minnesota Light & Power Company would remove the Yellow River Bridge and construct a new bridge on the new route. Because the Yellow River Bridge was too short to span the new crossing, the company offered to build a single-span steel truss (later changed to a four-span 750-foot bridge). In addition, they would grade and resurface the relocated part of the highway. By the end of the year, the county board agreed to the plan. In the spring of 1916, the supervisors authorized the bridge committee to advertise for bids to remove the old yellow bridge.⁵

In the meantime, residents near the northern village of Cobban, a small community of 50 residents, were petitioning to erect a local bridge across the Chippewa River. Crossing the river had almost always presented a problem to local travelers. The nearest crossings were five miles to the north in Cornell or an equal distance south to Jim Falls. In March 1908, petitioners had asked Chippewa County for a ferry to Cobban, but the supervisors deemed it a local matter and referred it back to the townships of Eagle Point and Arthur. Even the town of Arthur was hesitant to contribute money toward operating a ferry at or near Cobban, refusing in 1911 to appropriate \$100 in aid. In 1913, Cobban resident, Oscar Anderson, had the Wisconsin Highway Commission conduct a survey to estimate the cost of building a local bridge. Residents persisted in their efforts. In the summer of 1915, 40 individuals from the town of Arthur petitioned the town board to issue a bond for \$3,000 toward constructing a bridge across the Chippewa River at Cobban. However, at a special election held in July, the proposal lost (41 votes for the bond, 53 against it).⁶

At this point, the Chippewa County supervisors intervened. The Yellow River Bridge needed to be removed. According to the Wisconsin Highway Commission, it could be scrapped or re-erected. The county had no use for the old bridge. In November 1916, the supervisors offered to sell the structure to the towns of Eagle Point and Arthur, or any other governmental unit in the county, for the amount it would cost to dismantle it. The townships responded immediately. Within four days, 35 residents from the town of Arthur again petitioned for a special election to levy a tax of \$3,250 toward the expense of constructing the bridge. This time, voters were strongly in favor of the measure, with only eight persons casting opposing votes. Residents of the town of Eagle Point strongly supported an identical resolution. Despite the local enthusiasm for a bridge at Cobban, some Chippewa County residents considered the bridge unnecessary. The village was small, consisting almost entirely of a store, blacksmith shop, and saw mill. The presence of the saw mill might have increased the need for a bridge. At the same time local residents voted for the bridge, a well-known lumber manufacturer in the State, the Brown Brothers of Rhinelander, purchased the saw mill at Cobban. The new saw mill opened a new market for individuals selling pine or hardwood. In addition, it was one of only two saw mills in the area; the other mill, the Booth & Schumaker Manufacturing Company, operated in Chippewa Falls.⁷

The sequence of events, from dismantling to moving and, finally, to re-erecting the bridge, remain somewhat elusive. According to the agreement between the Wisconsin-Minnesota Light & Power Company and Chippewa County, the Yellow River Bridge was to remain standing until workers completed the new Yellow River Bridge. By the end of April 1917, the new bridge opened to traffic. At the same time, work began on dismantling the old bridge. At this point, the town of Arthur received an unexpected bill totalling \$447.96 for work on the "Yellow River-Cobban Bridge job." Unexplained problems also entered the process. In September, the town of Arthur supervisors withdrew and rescinded the proposed contract between the towns of Eagle Point and Arthur and the Wisconsin-Minnesota Light & Power Company. Town officials warned that they would consider illegal any actions that the Chippewa County Road committee undertook in the matter. In November 1917, the townships petitioned the county to help finance building the bridge across the river at Cobban. The county supervisors agreed to appropriate half the cost of the project (\$6,900), estimated at \$13,800.⁸

Throughout the next year, local volunteers transported the bridge parts to the Cobban location, using sleds during the winter months. By March 1918, all the bridge members had arrived at the new site. According to a contract entered into on December 28, 1916, the county had agreed to pay back \$3,410 to the Wisconsin-Minnesota Light & Power Company, when the company entered into a contract with the town of Eagle Point and Arthur, and when the townships had received all the bridge parts at the new site. The Cast Stone Construction Company built the substructure for the bridge. Based in Eau Claire, Wisconsin, this firm operated from 1915/1916 to the early 1940s. By the middle of March 1918, the company invited the county board bridge committee to inspect their work, having completed one of the concrete abutments on the west side of the river and laid the base for the central pier. The following month, the supervisors from the town of Eagle Point inspected the completed east foundation. They also contracted with a local resident, A. Dupras, to provide a gravel pit near the west end of the Cobban Bridge to make the fill.⁹

The township officials encountered several difficulties during the project. In March 1918, the Cast Stone Construction Company presented a bill for \$5,740.98. Refusing to pay for wages since the first of the month, the town chairmen reduced the amount to \$4,882.98. After several other minor adjustments, each township agreed to pay half of the balance (\$2,363.10). They paid the contractor on a monthly basis, according to their contract. At the same meeting, the Wisconsin-Minnesota Light & Power Company demanded \$3,200 for the Yellow River Bridge. The town chairmen agreed to offer only \$2,500, and then only when the contracts changed the elevation of the Cobban Bridge. In April of the following year, complications intensified. The town of Eagle Point was forced to allocate almost \$2,000 more to the Cobban Bridge project than voters had originally approved. At the same time, the towns of Eagle Point and Arthur agreed to institute legal action against the Cast Stone Construction Company for the extra cost of completing the bridge above the

contract price established on January 22, 1918. Apparently, the suit was never brought to trial because no records appears in the county and circuit court records for Chippewa County or Eau Claire. It is unclear how the participants resolved the dispute.¹⁰

MODERN STEEL STRUCTURAL COMPANY

The Modern Steel Structural Company in Waukesha, Wisconsin, formed as a corporation on February 12, 1900. Five individuals, P. E. Ryan, Mable Granger, W. P. Sawyer, Skamuel Br[], Jr., and George Harding formed the company with a capital stock of \$100,000. They intended to manufacture all kinds of iron and steel structural work, including bridges. Within a short time, they erected a plant a short distance east of the city of Waukesha, next to the Milwaukee and Madison line of the Chicago & Northwestern Railroad. The main building, 240 x 104 feet, consisted of steel frame construction with brick walls. The offices, drawing room and template room were situated on a gallery over the main shop, with insulating material built into the walls and floor to prevent noise from traveling. By 1902, company officials decided to build an addition (162 x 145 feet) on the building to increase room for handling railway work.¹¹

In 1902, Engineering News featured an article on the Modern Steel Structural Company, claiming the firm had the most modern plant and machinery in the west. The editor was particularly intrigued with the company's traveling reamers:

In many large bridge shops pneumatic reamers are used, and are handled by two men to each reamer, while in some shops the reamers are mounted on gantries or traveling frames which straddle that part of the floor on which work is placed to be reamed. At the new Waukesha shops, however, the double-jointed reamers are carried by cantilever frames having carriages which travel on a runway at the side of the central portion of the floor. This arrangement leaves the floor entirely unobstructed, and when not in use the frame can be swung round against the runway so as not to interfere with the handling of material.¹²

The Waukesha plant officers also had plans to install portable rivet heaters. The heaters, equipped with a hose for gas connections, could be mounted against trolleys on I-beam runways to permit use at the most convenient locations. The innovative equipment and plant layout might have been attributed to the experience of the company managers. The president of the company, S. B. Harding, worked for several years with the Wisconsin Bridge & Iron Company. F. W. Moore, the chief engineer, formerly worked for the Milwaukee Bridge & Iron Company. In 1902, the plant had the capacity to produce 5,500 tons per year. The company officially ceased operations on March 27, 1924.

DESCRIPTION

The Yellow River Bridge is a pin-connected metal overhead truss with built-up members. The two identical Pennsylvania spans each measure 241 feet in length. The overall length is 486 feet 5 inches; the overall width is 16 feet. The upper chord and inclined end posts consist of double upright channels tied with cover plate and V-lacing. Channel and angle-iron railing run the length of the structure. Concrete abutments and a single pier support the superstructure. Pier ends have roller-next expansion bearings, while the abutment ends are fixed. Metal runners/treads protect the wood deck.

FOOTNOTES

- 1 Chippewa County, Board of Supervisors, Proceedings, 1907 (November session), p. 11, 32; Chippewa Times, November 19, 1907, p. 7, col. 4.
- 2 "The Contract Is Let," Chippewa Times, December 31, 1907, p. 7, col. 6.
- 3 Chippewa County, Proceedings, 1908 (March session), p. 11; "Bridge is Accepted," Chippewa Times, March 31, 1908, p. 7, col. 4.
- 4 Chippewa County, Proceedings, 1908 (May session), p. 18; Ibid., 1910 (May session), pp. 11, 16; Ibid., (November session), pp. 15, 25; Ibid., 1910 (November session), 1910, p. 17, Ibid., 1911 (November session), pp. 51-52, 66; Ibid., 1913 (May session), p. 71; Ibid., 1914 (May session), pp. 48, 89-90.
- 5 Ibid., 1915 (October session), pp. 8-9; Ibid., (November session), pp. 11, 57-60, 68-69, 77-81; Ibid., 1916 (March session), p. 21, 140.
- 6 Ibid., 1908 (March session), p. 14; Town of Arthur, Board of Supervisors, Proceedings, April 4, 1911, p. 116; Wisconsin Highway Commission Bridge Survey, March 10, 1913 (Wisconsin Department of Transportation--Bridge Section, Microfilm Reel F77, Bridge B-9-965); Town of Arthur, Proceedings, June 28, 1915, p. 140; Ibid., July 12, 1915, p. 142; Town of Eagle Point, Board of Supervisors, Proceedings, June 28, 1915, p. 320; Ibid., July 27, 1915, p. 231.
- 7 Chippewa County, Proceedings, 1916 (November session), pp. 39-40; Town of Arthur, Proceedings, December 7, 1916, p. 150; Ibid., December 19, 1916, p. 151; "Arthur Votes," Chippewa Telegram, December 17, 1916, p. 5, col. 3; "Vote Bridge," Chippewa Telegram, December 19, 1916, p. 1, col. 1; "Another Rich Corporation," Chippewa Telegram, November 21, 1916, p. 1, col. 4. The Wisconsin Highway Commission provided the specifications for removing the old Yellow Bridge. The superstructure

could become the property of the contractor removing it, or the contractor could disassemble the bridge to permit future re-erection. The latter option required painting the bridge parts red, marking them in black, and labeling the smaller pieces. The two spans needed to be piled separately on skids, elevating the members off the ground. See Bridge File B-9-965 (Wisconsin Department of Transportation--Bridge Section).

- 8 "Bridge Opened to the Public," Chippewa Telegram, April 23, 1917, p. 1, col. 4; Town of Arthur, Proceedings, April 21, 1917, p. 155; Ibid., September 21, 1917, p. 157; contract between Wisconsin-Minnesota Light & Power Company and Chippewa County, April 29, 1916 (Northern States Power Company, Eau Claire, Wisconsin; also Register of Deeds, Chippewa County Courthouse, Chippewa Falls, Wisconsin).
- 9 Charlene Olson, "Crusade to Save Cobban Bridge Leads to Historical Trail," Chippewa Herald-Telegram, December 11, 1982, Sec. 1, p. 3, col. 3; Chippewa County, Proceedings, 1918 (March session), pp. 51-52; Eau Claire City Directories, 1914-1943 (several volumes missing), listings under Cast Stone Construction Company; "Bridge Committee Inspects Work on Cobban Bridge," Chippewa Telegram, March 13, 1918, p. 1, col. 4; Town of Eagle Point, Proceedings, April 12, 1918, pp. 279-280. According to newspaper and oral history accounts, Cromby and Thailacker of Milwaukee re-erected the bridge at Cobban. My research did not turn up the name of this or any other contractor. Perhaps this information is contained in additional records at the Northwestern States Power Company or additional newspaper accounts. Similar sources also claim that L. G. Arnold put in the footings. This appears to be an error, since township proceedings and newspaper accounts suggest otherwise. Local historians conduct a great deal of research for a Wisconsin historical marker erected for the Cobban Bridge in 1986. Unfortunately, this information is not easily accessible.
- 10 Town of Eagle Point, Proceedings, March 6, 1918, p. 178; Ibid., April 1, 1919, pp. 10-11; Town of Arthur, Proceedings, April 1, 1919, p. 171. According to a local historian, the townships demanded that the bridge height be reduced six feet. See Emil Gerber, Memories of Cobban, (n.p., 1982), p. 59.
- 11 Modern Steel Structural Company, Articles of Incorporation, vol. A, p. 384 (Register of Deeds, Waukesha County Courthouse, Waukesha, Wisconsin); "The Plant and Special Machinery of the Modern Steel Structural Company," Engineering News 48(6)(August 7, 1902): 100.
- 12 Modern Steel Structural Company, Dissolution papers, vol. D., p. 387 (Register of Deeds, Waukesha County Courthouse).

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