

MILLBROOK BRIDGE

Spanning the Fox River at Shuh Shuh Gah Forest Preserve
Millbrook
Kendall County
Illinois

HIER No. KE-2018-2

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HISTORIC ILLINOIS ENGINEERING RECORD
Illinois Historic Preservation Office
1 Old State Capitol Plaza
Springfield, Illinois 62701

HISTORIC ILLINOIS ENGINEERING RECORD

MILLBROOK BRIDGE

HIER No. KE-2018-2

Location: Spanning the Fox River at Shuh Shuh Gah Forest Preserve, Millbrook, Kendall County, Illinois.

Present Owner: Kendall County Forest Preserve District.

Present Use: Closed to all traffic due to structural deficiencies.

Significance: The Millbrook Bridge stands as an example of a Pin Connected Pratt Through Truss Bridge, found throughout the United States from the late nineteenth through middle twentieth centuries. The Pratt's bridge design started the change from wood to iron railroad bridges.

Historians: Christopher Flynn and Marcy Prchal, Public Service Archaeology & Architecture Program, June, 2020.

1. **Research Strategy:** Research undertaken to document the Millbrook Bridge included archival, field, and report preparation. Archival research was undertaken prior to, and during field investigations, and included examination of local histories and records as well as known architectural documents to develop an architectural and historical context for the bridge. The field investigations also included photographing and documenting structural elements of the bridge in their present conditions.
2. **Actual Research Process:** Contact was made with individuals at the Village of Millbrook, the Assessor's Office, a local lawyer, and a local historian.

**Project
Information:**

The Millbrook Bridge is scheduled to be demolished due to safety issues under Corps of Engineers Permit No. CEMVR-OD-P-2018-0277 to the Kendall County Forest Preserve District. The undertaking is subject to review under Section 106 of the National Historic Preservation Act of 1966, as amended, 54 U.S.C. 306108 and its implementing regulations (36 CFR Part 800).

Illinois State Historic Preservation Office determined that the structure was eligible for listing on the National Register of Historic Places and required HIER documentation prior to demolition. The SHPO Log number for this undertaking is #007051717.

Marcy Prechal conducted fieldwork, historical research, and compiled this report, Christopher Flynn conducted field work and historical research, Susan Brannock-Gaul drafted the graphics, and Dr. Kevin McGowan served as Principal Investigator for the Public Service Archaeology & Architecture Program, Department of Anthropology, University of Illinois Urbana-Champaign.

Photographs were taken by Christopher Flynn.

PART I. HISTORICAL INFORMATION

A. Physical History:

- 1. Date of Construction:** 1897.
- 2. Architects:** Bellefontaine Bridge and Iron Company.
- 3. Builder, contractor, suppliers:** Bellefontaine Bridge and Iron Company, Bellefontaine, Ohio.
- 4. Alterations and additions:** The west bridge span was rebuilt in circa 1955. The central and eastern spans remain relatively unaltered from the original construction. The original deck planking was replaced with creosoted timber in the 1980s.

B. Historical Context

1. Kendall County

Kendall County is situated in northeastern Illinois, bordered by Kane County on the north, Will County on the east, Grundy County on the south, and LaSalle County on the west. Kendall County is made up of nine congressional townships and is eighteen square miles in area. The well-timbered and hillier northern portion of the county is drained principally by the Fox River, which flows in a southwesterly direction through the county and empties into the Illinois River at Ottawa. Principal tributaries of the Fox include Big Rock Creek, Little Rock Creek, Rob Roy Creek, and Blackberry Creek from the north, or west, and Clear Creek, Hollenbeck Creek, and Morgan Creek from the south, or east. The mostly prairie-covered central and eastern portions of the county are drained by smaller streams, such as Lisbon Creek and branches of Aux Sable Creek, that flow southward to the Illinois River. As elsewhere in Illinois, early pioneers of Kendall County settled around timbered groves that provided fuel, building material, game, and shelter for livestock. The underlying soils were also more easily worked than those of the prairie.

Only after the development of the self-scouring plow, first widely available in the 1840s, were the open prairies fully utilized.¹

In 1823 the U. S. government surveyed and laid out sections of land set aside for the Illinois Michigan Canal in a diagonal strip across southern Kendall County, through southern portions of present-day Na Au Say, Seward, Lisbon and Big Grove townships. The northern line of the canal survey was known as the Indian Boundary Line. Native American land north of the line, except in the distant northwest lead-mining district, as well as government canal land south of the boundary line, were not opened for Euro-American settlement until the early to middle 1830s. Nevertheless, the initial settlement of Kendall County closely followed the settlements by Archibald Clybourne at Chicago and by Dr. Davidson at Ottawa in 1823. The earliest Euro-American settlers of Kendall County ascended the Fox River from its mouth on the Illinois River, at Ottawa, and homesteaded among the timbered groves of the Fox and its tributary streams. In 1824 the Reverend Jesse Walker, a pioneer preacher at Ottawa, established a Methodist mission to the Pottawattamie east of the Fox River at Mission Creek. In 1826, Robert Beresford and his family followed Walker up the Fox and settled on the edge of Holderman's Grove in southwestern Big Grove Township, thus becoming the first permanent settlers in Kendall County. North of Holderman's Grove was a series of timbered groves stretching to the northeast that included Kellogg's Grove, Collins Grove, Apakesha Grove, and the largest, Big Grove. By 1831 these groves were settled by the families of Earl Adams and Ebenezer Morgan from New York; William Harris and Ezra Ackley from West Virginia; George and Clark Hollenback, Daniel Kellogg, and Moses Booth from West Virginia by way of Ohio and Marshall County, Illinois, and many others.² Settlement was interrupted in 1832 by a Native American uprising but resumed in 1833 following the removal of Native Americans to west of the Mississippi River. By the end of that summer many of the first settlers began to return to their homesteads, and new settlers flooded into the region following the opening in June 1835 of a government land office at Chicago in June 1835.³ In 1838 the Illinois state legislature authorized the construction of a state road to serve as a passenger and mail route between Chicago, on Lake Michigan, and Ottawa, eighty miles to the southwest, on the Illinois River. A stage route through the western part of Kendall County was surveyed and laid out along a ridge line east of, and parallel to, the Fox River by Kendall County residents B. F. Fridley, I. P. Hallock, Almon Ives, and Archibald Sears.⁴ Eighteen years later, in 1856, the road was re-routed to the east, along present-day Illinois Route 71, by J. J. Cole and Thomas Finney of Fox Township, Kendall County.⁵

¹ John Mack Faragher, *Sugar Creek: Life on the Prairie* (New Haven: Yale University Press, 1986), 62-63; DeLorme, *Illinois Atlas and Gazetteer* (Yarmouth: Delorme, 2010).

² E.W. Hicks, Knickerbocker, and Hodder, *History of Kendall County, Illinois* (Aurora, 1877), 54-59, <https://www.archive.org>.

³ George Fisher & Company, *Biographical Directory of the Voters and Taxpayers of Kendall County, Illinois* (Chicago, 1876), 12-13, <https://www.ancestry.com>,

⁴ Hicks, Knickerbocker, and Hodder, *History of Kendall County, Illinois*, 281.

⁵ *Ibid.*

In April 1841, Kendall County was organized from the northern portion of LaSalle County and the southern portion of Kane County, Illinois.⁶ Much of the impetus for organizing the new county was the distance the citizens of LaSalle and Kane had to travel to their respective county seats. Residents of the three northern townships, in Kane County, had to travel to Geneva, while residents of the six southern townships, including Fox Township, were in LaSalle County, and had to travel to Ottawa. In the bill first introduced in the state legislature, the new county was called Orange, but before final passage of the Act the name was changed to Kendall, for Amos Kendall, Postmaster General in Andrew Jackson's cabinet. County commissioners John H. Harris, E. A. Rider and William E. Armstrong located the county seat at Yorkville, on the Fox River, straddling the Bristol and Kendall townships line. The first courthouse was built by the citizens of Yorkville on Lot 8, Block 15, in the Original Village of Yorkville. But even as county buildings were being constructed, there were some who opposed the location of the county seat at Yorkville and, in September 1845, a slim majority of voters approved moving it to Oswego, closer to more populated Fox River towns in Kane County. Settlement of the county continued to move westward following the establishment in 1853 of Chicago, Burlington and Quincy (CB&Q) Railroad depots at Oswego and present-day Plano. By 1859 the question of moving the county seat back to the more centrally located Yorkville was again submitted to a vote. The western townships voted in favor while the eastern townships were generally opposed, but the move was approved by a majority of two to one. In 1862 construction began on a new courthouse, on land donated by Jacob and Elias Black. Before the new courthouse was completed, The Black brothers also built a two-story brick building to provide a repository for county records thus enabling the transfer of county records from Oswego to Yorkville on June 7, 1864. The Kendall County seat has remained in Yorkville since that time. The new Italianate courthouse was completed in 1864 but was destroyed by fire in 1887. The Italianate style building was painstakingly reconstructed and still stands today, although county functions were removed to a new facility in 1998.⁷

2. Fox Township and the Village of Millbrook:

Fox Township lies in west-central Kendall County and comprises congressional Township 36 North, Range 6 East. It is bordered on the north by Little Rock Township, on the east by Kendall Township, on the south by Big Grove Township, and on the west by Northville Township, La Salle County. The Fox River enters Fox Township from the northeast in Section 3 and exits to the southwest through Section 30. Principal tributaries within Fox Township are Hollenback Creek, flowing north into the Fox at Millhurst in

⁶ Newton Bateman and Paul Selby, *Historical Encyclopedia of Illinois and History of Kendall County, Illinois* (Chicago: Munsell Publishing Company, 1914), 754-755, <https://books.google.com>.

⁷ "History of Yorkville," City of Yorkville, accessed June 1-3, 2020, <https://www.yorkville.il.us>; Hicks, Knickerbocker, and Hodder, *History of Kendall County, Illinois*, 253.

Section 4; and Clear Creek, which enters the Fox near Millington in Section 30.⁸ Fox Township was first settled in 1831 by the family of George Hollenbeck, natives of Muskingum County, Ohio. In 1830 George and his brother Clark, and their families, migrated to Marshall County, Illinois. From there Clark migrated up the Illinois and Fox Rivers to become the first settler in Na-Au-Say Township, Kendall County. The following spring, George Hollenbeck, William Harris and Ezra Ackley went up the Fox from Ottawa and stopped at large grove surrounding a north-flowing creek. Hollenbeck was the first to make his claim and settle his family at what came to be known as Hollenbeck Creek and Hollenbeck Grove. They were joined by the Harris and Ackley families in the fall of 1831. Early in spring 1834, James Smith and a Mr. Hull traveled from Putnam County and up the east side of the Fox River as far as present-day Millbrook. The following month they returned with their families to settle in the Fox River timber, along with Reverend Royal Bullard, William Vernon, John M. Kennedy and Joseph Weeks. That summer they were joined by R. W. Carns, J. S. Murray and E. Dyal from Camden, South Carolina.⁹ Samuel Jackson and George F. Markley arrived in the fall of 1834 and settled on the Fox River in Sections 30 and 31, where they surveyed and laid out the town of Milford, later renamed Millington.¹⁰ Rachel Blanding and her husband, Dr. Blanding, went on a “western tour” in 1837 and visited their friends Royal Bullard and William Vernon in present-day Fox Township, Kendall County. While there, Sarah Blanding christened Reverend Bullard’s property “Millbrook Farm”. Several years later she willed one hundred dollars to help build a meeting house there to be called Millbrook Church.¹¹ That same year, 1837, George Hollenbeck and a Mr. Elderding built a sawmill and a grist mill at Millbrook Ford, just north of the present Millbrook bridge in Section 9. It was later taken over by William Whitfield and the location became known as Whitfield Ford. In 1859 a bridge was constructed across the Fox River at Post’s Mills in Section 4. The first school in Fox Township, Darnell School, opened in 1849 in the timber near the Millbrook Ford. That was followed by the Rogers School, opened in 1859, and the Greenfield School in 1861.¹²

The Village of Millbrook is located in Section 16 of Fox Township, Kendall County. The area of the present village, as noted in the Fox Township history, was first settled in 1834 by several families from Putnam County, Illinois, as well as families from Camden, Kershaw County, South Carolina. In the early years the settlement was known to the southerners as Camden, although the name Millbrook was commonly applied to Royal Bullard’s farm, the village church, and the mill at Millbrook Ford.¹³ The village's first official name became Mansfield when a post office by that name was opened in February

⁸ Newton Bateman and Paul Selby, *Historical Encyclopedia of Illinois and History of Kendall County, Illinois*, 1033.

⁹ Hicks, Knickerbocker, and Hodder, *History of Kendall County, Illinois*, 128.

¹⁰ *Ibid.*

¹¹ *Ibid.*, 185.

¹² *Ibid.*, 185-186.

¹³ *Ibid.*, 128.

1849. The name of the village was officially changed to Millbrook on January 11, 1866.¹⁴ Jacob Budd was the driving force behind the founding and development of Millbrook. The Budd family arrived in Kendall County from Dutchess County, New York in 1844. Jacob Budd purchased land and settled in Fox Township in 1853. As a large landowner, Jacob Budd granted the Chicago, Burlington & Quincy Railroad free right of way to build the Fox River Valley rail line across his property in exchange for the railroad agreeing to establish a depot at Millbrook. In October 1870 regular rail service began through Fox Township. A depot building was brought by the railroad company from Streator, Illinois and set up at Millbrook. The first Millbrook post office opened in 1871 with Jacob Budd serving as postmaster. In July 1873, Budd supervised the survey and platting of the original Village of Millbrook, consisting of seven square blocks. A large part of the village was built in anticipation of the increase in commerce and rail passenger traffic through the region. Budd constructed a grain elevator and a commercial building, established a lumber business and operated a dry goods and grocery business. One of the largest buildings constructed housed Budd's Hotel, also known as Millbrook Hotel, which opened in January 1874. The Millbrook Hotel had a parlor, dining room and kitchen on the first floor and seven bedrooms on the second floor. the hotel served rail travelers as well as area farmers in town to sell grain and purchase goods. The Village of Millbrook also supported a second dry goods store, a drugstore, tin-shop, harness shop, hay press, machine shops, a warehouse and numerous residences.¹⁵ In February 1888, a fire destroyed the Millbrook post office and a hardware store owned by G. W. Greenfield. The fire was discovered by O. B. Larson, who lived on the other side of the post office above a store he owned which, along with the rest of the town, was saved due to the direction of the wind.¹⁶ In 1894 the Millbrook Cooperative Creamery Company was organized and operated from a building constructed by Jacob and Matthew Budd, O. B. Larsen, and George Nichols. In October 1899, however, fire again swept through Millbrook's business district. Entirely destroyed was the Millbrook Hotel, which housed Van Tassel's hardware store, as well as the hotel barn and Van Tassel's machinery shed, Washburn & Marshall's market, and Lawson's grocery store. O. B. Larsen's mercantile, the grain elevator, and the railroad depot were spared once again by a change in the wind. The village was thus not a total loss but by the time of the fire it had become apparent that the local economy could not support a re-built hotel in Millbrook. Similarly, the burned buildings owned by the Budd estate were un-insured and were not re-built. Only Van Tassel's hardware store had been insured.¹⁷ The railroad failed to produce the expected economic boon, and the village never fully recovered financially from the destructive fires, and Millbrook remains to this day a quiet, picturesque, country hamlet.¹⁸

¹⁴ Newton Bateman and Paul Selby, *Historical Encyclopedia of Illinois and History of Kendall County, Illinois*, 900: Hicks, Knickerbocker, and Hodder, *History of Kendall County, Illinois*, 372.

¹⁵ "Village History," Village of Millbrook, accessed June 1-3, 2020, <https://thevillageofmillbrook.com>.

¹⁶ *Ibid.*

¹⁷ *Ibid.*

¹⁸ *Ibid.*

3. The Fox River

The stretch of the Fox River just upstream of the Millbrook Through-Truss Bridge has an interesting history, of which the earliest accounts may not be entirely factual. Just north of the Fox Township line, in Section 34 of Big Rock Township, Little Rock Creek and Big Rock Creek converge and flow south a very short distance into the Fox River. In the bottoms on the northeast side of Little Rock Creek is a large, free-standing limestone outcrop that some believe was used as a Native American campsite and council grounds. The bluff line to the north of the confluence of the two streams with the Fox River is known historically as Maramech Hill, and Plano, Illinois historian John F. Stewart believed that French voyageurs established a trading post there in the circa 1730s. In May 1832, the confluence of the Rock creeks and Fox River at Maramech Hill was the setting for a grand council between Black Hawk and his Sacs, and Shabbona, chief of the resident Pottawattamie tribe. Shabbona vainly attempted to dissuade Black Hawk from waging war against Euro-American settlers, and in the process lost the loyalty of some from his own camp.¹⁹

With the end of the Black Hawk War the few pioneers who had fled to safer confines began to return to their homesteads, and in the next few years were joined by an influx of new settlers. In 1837, George Hollenbeck and a Mr. Elderding built a sawmill and a grist mill at Millbrook Ford, just north of the present Millbrook bridges in Section 9, Fox Township. The sawmill was built first, with a twenty-four-foot overshot wheel, and the grist mill was constructed soon after. They ran the mills for four years and sold out to Greeley and Gale of St. Louis in 1841. William Whitfield ran the mills from 1844 until the water ran low, and finally sold it piecemeal. The road to the river from the northwest is still called Whitfield Road and it is said that the course of the mill race can still be detected at low water just above the ford. In 1859 Frederick Post constructed a bridge across the Fox River close to the township line, as well as a grist mill near the mouth of Big Rock Creek, most likely in the southwest quarter of Section 34, in Little Rock Township.²⁰ The bridge stood for nine years until it was swept away by a freshet in 1868. A part of the stone abutment on the north end can still be seen south of Millhurst Road west of the mouth of Big Rock Creek.²¹

Two years earlier, in 1866, Frederick Post began quarrying limestone to build a dam downstream from the bridge in Section 4. Post's limestone dam, mortared with lime from Post's own lime kiln, was completed in 1870 at a cost of \$15,000. The structure was curvilinear, with the convex side facing upstream. It was twelve feet thick and eight feet high, wide enough to allow horses and wagons to cross over. Brownell Wing, of Big Grove Township, bought a one-half interest in the enterprise and constructed a four-story limestone flour mill powered by four turbine water wheels at a total cost of \$30,000

¹⁹ Hicks, Knickerbocker, and Hodder, *History of Kendall County, Illinois*, 71, 288.

²⁰ L. G. Bennett & Company, *Plat Map of Kendall County, Illinois* (Yorkville: L. G. Bennett & Company, 1859).

²¹ Hicks, Knickerbocker, and Hodder, *History of Kendall County, Illinois*, 71, 374.

including water rights. Wing had the name “Fox River Mills” carved on a large stone set into the front of the mill. As fine a facility as it was for its time, the necessary demand never materialized, partly due to the distance from railroad depots in Plano, Yorkville, and Millbrook. Post moved away and Brownell Wing, heavily in debt, filed for bankruptcy and sold out to the Valley Power Company. Soon after that, the mill was looted for its expensive machinery and the building sat unused for several years.²² George H. Steward was the next owner but while checking on his property, in July 1885, he was stabbed to death by squatters. In 1890 Albert H. Sears purchased Millhurst as a summer home. Later the Sears family opened the mill and its grounds to the public. Plano High School graduation banquets were held there in 1909 and 1910. In 1911 Sears sold the mill and water rights to Simpson Brothers of Aurora, Illinois, who purchased land along both sides of the Fox River up to Plano Bridge with the intention of developing power for lighting nearby towns and for an electric line. They built a new larger dam on top of the Post dam, rising several feet higher and constructed of reinforced concrete with lock heads and race heads. Simpson Brothers investments did not come to fruition and they sold out to the Public Service Company of Northern Illinois, who owned it for years but did not maintain the structures. The dam, too, was gradually undermined by the constant flow of water, with foundation boulders washing out and large breaches going unrepaired. Millhurst was used as a YWCA camp in the 1930s, and for a time was used as a nursing home. After a devastating 1979 fire, Millhurst sat empty until 1993, when the four-story limestone building was renovated into a bed and breakfast.²³

4. The Pratt Truss Bridge

The most common bridge type in the United States from the middle nineteenth through early twentieth century was the metal truss bridge.²⁴ A metal truss bridge is made up of many relatively small pieces of iron or steel, joined in a series of triangles, which then connect to form the bridge. This style of bridge uses these small members to make a long truss that provides length and strength for the bridge – the arrangement of these members determines the specific truss form. The main members are either stiff struts or thinner, more flexible rods or bars. As loads are put onto the bridge, each piece is put into tension or compression; the stiffer struts can withstand both the tension and compression, while the thinner rods and bars are designed to withstand only the tension.²⁵ There are three main styles of truss bridge: the deck truss, which is located below the travel surface; the pony truss, which has trusses on the sides of the travel surface but is not braced on top;

²² Ibid., 382-383.

²³ “Place Names and Geographical Features of Kendall County,” Kendall County Illinois, Genealogy, accessed May 15, 2020, <https://www.kendallkin.org>; Anne Sears, Kristy Lawrie Gravlin, Jeanne Valentine, and Plano Community Library District, *Images of America - Plano* (Arcadia Publishing, 2012).

²⁴ T. Allen Comp and Donald Jackson, “Bridge Truss Types: a guide to dating and identifying” *History News* 32, no. 5 (may 1977): 1, https://www.arkansashighways.com/historic_bridge.

²⁵ Ibid., 2.

and the through truss, which has trusses on the sides and cross bracing on the top and bottom.²⁶

The earliest truss bridges were made of wood, and as a result they were under constant threat from fire and water damage. In 1840, William Howe patented a truss that was constructed using both wood and wrought iron. Known as the Howe Truss, this design used metal verticals as the tension members and wooden diagonals for compression.²⁷ The length of the Howe Truss was limited, however, due to the tendency of the wooden diagonal compression members to buckle as the length increased with each span.²⁸ This design was expanded upon by father and son architects Caleb and Thomas Willis Pratt, and in 1844 the Pratts obtained a patent for a Truss Frame for Bridges. The Pratts took the Howe Truss and replaced the wooden diagonal members with two iron rods for compression, and kept the longer wooden verticals for the tension members, essentially reversing the previous design.²⁹ Reduction of the length of the compression members acted to prevent bending and buckling, while the long members in tension in this design made longer spans possible. Over time, modifications were made to retain the configuration of the compression and tension members while changing the shape of the top and bottom chords.³⁰ The Pratt's design was both strong and inexpensive; the parts could be easily shipped to construction sites and the bridges could be easily constructed by semi-skilled laborers. Because of the ease of construction and relatively low cost, the Pratt Truss became the standard for American truss bridges for moderate spans into the twentieth century.³¹ As railroads expanded across the country, it became evident that the majority of bridge disasters were caused by the use of the wooden members, and an all-metal design was needed. By the 1860s, iron had replaced wood as the material of choice for railroad bridges, and eventually iron was replaced by steel construction.³²

5. The Millbrook Bridge

The Millbrook Bridge, also known as the Valley Drive Pedestrian Bridge, was constructed in 1897 upriver from the Village of Millbrook. It is located approximately two miles south of the Plano Bridge in Section 34 of Little Rock Township, and three miles north of the Millington Bridge in Section 30 of Fox Township. An 1870 Fox Township plat map shows what is now Valley Road approaching the west bank of the Fox River from the north and just downriver what is now Dobson Lane resuming in a southeasterly direction from the east bank of the river.³³ A 1903 Fox Township plat

²⁶ "The Pratt Through-Truss Bridge – Patuxent Branch Trail", The Historical Marker Database, accessed May 27, 2020, <https://www.hmdb.org/m.asp?m=20498>.

²⁷ Comp and Jackson, "Bridge Truss Types", 3.

²⁸ Frank Griggs, Jr., "The Pratt Truss," *Structure*, June 2015, <https://www.structuremag.org/?p=8600>.

²⁹ *Ibid.*

³⁰ Comp and Jackson, "Bridge Truss Types", 5.

³¹ Griggs, "The Pratt Truss."

³² Comp and Jackson, "Bridge Truss Types", 5.

³³ Middle West Publishing Co., *Atlas of Kendall County, Illinois* (Chicago: Middle West Publishing Co., 1870).

shows Valley Road extended about 200 meters further south on the west side and crossing the Fox River at the location and the angle of the 1897 Millbrook Bridge.³⁴ An example of a type of structure common at the turn of the twentieth century, the single-lane riveted-steel and wood Pratt Through Truss Bridge was constructed on four limestone piers by the Bellefontaine Bridge and Iron Company, incorporated on 13 May 1890, in Bellefontaine, Ohio.³⁵ The three truss sections were shop fabricated and erected on-site using steel pins at each truss connection. When the bridge was completed it provided Millbrook, one of Kendall County's smallest communities, with the most direct route to the village of Sandwich, one of the largest towns and commercial centers in DeKalb County, Illinois. The west end of the bridge has a plaque dated 1897 and listing the Commissioners of Fox Township instrumental in getting the bridge constructed: H. B. Barnes, E. B. Sleezer, J. D. Russell, A. C. Otto, John Murley, Nels Olson, and E. W. Jackson.

In 1955, following heavy rains, the Fox River swelled to its highest levels in the past 80 years, overrunning the western abutment and causing the most westerly span of the bridge, one third of the entire structure, to collapse. The western span was replaced with a somewhat taller steel structure that differed from the remaining two original spans in that it was of welded construction and did not employ the use of pin connections. While the Millbrook Bridge continued to be used, maintenance of the structure remained an issue. In 1982 an overweight truck damaged the aging deck planking forcing the Fox Township Road Commissioner and Kendall County to close the bridge to fire trucks, school buses and heavy trucks. The bridge remained open to local passenger car traffic. Following the partial closure of the old truss bridge, the Kendall County Highway Department began to formulate plans to construct a new bridge just south of the truss bridge that would include major grading of the east and west bridge approaches of Whitfield Road. Once the new bridge had been completed, Fox Township and the Kendall County Highway Department entered into an agreement with British investor, property developer and art collector Peter (now Lord) Palumbo to finance immediate repairs to the old bridge and to provide funds for ongoing maintenance costs and liability insurance. Mr. Palumbo became involved with the Millbrook Bridge as the owner, through a Family Multigenerational Trust, between 1972 and 2003, of the Farnsworth House, an International Style residential structure designed and constructed by Ludwig Mies Van Der Rohe between 1945 and 1951, which is located about two miles upriver from the Millbrook Bridge, just east of the Fox River Bridge south of Plano, Illinois. Palumbo purchased the Farnsworth House in 1972 and had taken an interest in preserving the scenic rural beauty of this portion of the Fox River Valley. In an attempt to preserve the structural integrity of the Millbrook Bridge, he set up a trust in 1985 to provide funding to restore the bridge to a safe condition for pedestrian use and to maintain the structure for twenty years. In a letter to the Kendall County Highway Department dated 16 January 1985, Mr. Palumbo wrote: "I

³⁴ George A. Ogle & Company, *Standard Atlas of Kendall County, Illinois* (Chicago: George A. Ogle & Company, 1903).

³⁵ "The Bellefontaine Bridge & Iron Company," Ohio-register.com, accessed June 9, 2020, <https://www.ohio-register.com>.

would greatly appreciate your advice in connection with the former bridge, which should be maintained on an ongoing basis if it is to give pleasure, both aesthetic and practical, to future generations. Would it be in order for me to suggest that your Department should prepare a report upon the current condition of the old bridge, together with recommendations, (and, if possible, estimates of cost), for its maintenance. Such a report would form the basis for a future programme of works...”.³⁶ With the funding provided by Peter Palumbo, the Kendall County Highway Department replaced the deck planking with new, creosoted timber, and sandblasted and re-painted the undercarriage and steel spans.³⁷ Sometime around the year 2000, the Multigenerational Trust, headquartered in the United Kingdom, required that all Trust assets in the United States be disposed of. Accordingly, in 2003, Palumbo sold at auction the Farnsworth House to Landmarks Illinois, Friends of the Farnsworth House, and the National Trust for Historic Preservation and ceased providing financial support through the Trust for the upkeep of the Millbrook Bridge.³⁸ In about 2004-2005 ownership of the Millbrook Bridge changed from Fox Township to Kendall County. In 2005 it was discovered that high waters over time had scoured the downstream-facing west stone abutment and the concrete-reinforced west end abutment. As a result, the Millbrook bridge was closed to pedestrian traffic and has remained closed to this day.

PART II. Structural/Design Information

A. General Statement:

- 1. Character:** The Millbrook Bridge was designed and built by the Bellefontaine Bridge and Iron Company in 1897. Originally built for horse and buggy traffic, the bridge was eventually used for motor vehicles, and then exclusively for pedestrians. The Millbrook Bridge is an example of a Pratt Through Truss Bridge, common in the United States from the late nineteenth through the middle twentieth centuries, but now a quickly disappearing cultural resource.
- 2. Condition of fabric:** The Millbrook bridge is structurally compromised; the west center masonry abutment is crumbling. The cost of maintaining and repairing the bridge are the reasons the bridge will be torn down.

B. Description:

- 1. Materials:** The Millbrook Bridge is a steel pin-connected, three-span Pratt Through Truss bridge with a wood plank deck, on limestone abutments.

³⁶ John Twait, copies of correspondence from Peter Palumbo dated 16 January 1985, provided June 11, 2020.

³⁷ John Twait, personal communication with author, June 11, 2020.

³⁸ Daniel J. Kramer, personal communication with author, February 19, 2020; Stevenson Swanson and Blair Kamin, “Farnsworth House Saved,” *Chicago Tribune*, December 13, 2003, <https://www.chicagotribune.com/news/ct-xpm-2003-12-13-0312130174-story.html>.

2. Dimensions:

- a. Over-all dimensions: The total bridge span is 401'- 2-7/8". There are three separate spans in total: East span is 134'- 2-13/32"; Center span is 133'- 9-39/64"; West span is 133'-2-13/32". The east trail approach is 81' from the main road, and the west trail approach is 104' from the main road.
- b. Clearance: East and Center spans 15'-1"; West span 16'.
- c. Roadway width: 15'-11".
- d. Foundations: The bridge sits on four masonry abutments: the east and center abutments are constructed of limestone with concrete caps, while the western abutment is entirely concrete.
- e. Structural system: The Millbrook Bridge is a three-span steel Pratt Through Truss Bridge over the Fox River. Each span has eight panels. Truss spacing on the east and center spans is 15'-9", and on the west span is 18'-4-1/2". The east and center spans are pin-connected, and the west span is riveted. The upper and lower chords are parallel and connected by posts measuring 6" x 9-3/4" on the east and center spans and 6" x 14-1/2" on the west span. The trusses are braced by crossed portal bracing at each span end, struts at each panel point, and sway bracing at each panel. Spans are connected at hand railings; the east and center spans have cross-braced rails measuring 1'-9-1/2" high and 5-1/2" wide, and the west span has double rails. On the west end is a dedication plaque, listing the 1897 Commissioners of Fox Township (H. B. Barnes, J. D. Russell, John Murley, E. B. Sleezer, A. C. Otto, Nels Olson, and E. W. Jackson).

D. Site Information:

General setting and orientation: The Millbrook Bridge crosses the Fox River at Millhurst Road in Millbrook, Kendall County, Illinois, just north of Whitfield Road. The approach from the west includes a portion of Millhurst Road/Dobson Lane and a paved parking area, while the approach from the east includes an unpaved walking path leading from a blocked-off Millhurst Road/Valley Drive. The general area is heavily wooded.

PART III. SOURCES OF INFORMATION

A. Primary Sources:

Bill Perkins, Millbrook Village Trustee, personal communication 18 March 2020.

Daniel J. Kramer, Attorney At Law, personal communication 19 February 2020.

Dick Whitfield, Fox Township Assessor, personal communication 20 February 2020.

John Twait, Fox Township Historian, personal communications 10 – 12 June 2020.

B. Secondary Sources:

Batemen, Newton and Paul Selby. *Historical Encyclopedia of Illinois and History of Kendall County, Illinois*. Chicago, 1914. <https://books.google.com>.

City of Yorkville. "History of Yorkville." Accessed June 1-3, 2020. <https://www.yorkville.il.us>.

Comp, Allen T. and Donald Jackson. "Bridge Truss Types: a guide to dating and identifying". *History News* 32, No. 5 (May 1977).

DeLorme, *Illinois Atlas and Gazetteer*. Yarmouth: DeLorme, 2010.

Faragher, John Mack, *Sugar Creek: Life on the Prairie*. New Haven: Yale University Press, 1986.

George Fisher & Company, *Biographical Directory of the Voters and Taxpayers of Kendall County, Illinois*. Chicago, 1876. <https://www.ancestry.com>.

George A. Ogle & Company, *Standard Atlas of Kendall County, Illinois*. Chicago: George A. Ogle & Company, 1903.

Griggs, Frank Jr. "The Pratt Truss." *Structure*, June 2015. <https://www.structuremag.org/?p=8600>

Hicks, E.W., Knickerbocker, and Hodder. *History of Kendall County, Illinois*. Aurora, 1877. <https://www.archive.org>.

The Historical Marker Database. “The Pratt Through-Truss Bridge – Patuxent Branch Trail.” Accessed May 27, 2020.

<https://www.hmdb.org/m.asp?m=20498>.

Kendall County Illinois, Genealogy. “Place Names and Geographical Features of Kendall County.” Accessed May 15, 2020. <https://www.kendallkin.org>.

L. G. Bennitt & Company, *Plat Map of Kendall County, Illinois*. Yorkville: L. G. Bennitt & Company, 1859.

Middle West Publishing Company, *Atlas of Kendall County, Illinois*. Chicago: Middle West Publishing Company, 1870.

Ohio-register.com. “The Bellefontaine Bridge & Iron Company.” Accessed June 9, 2020. <https://www.ohio-register.com>.

Village of Millbrook. “Village History.” Accessed June 1-3, 2020. <https://thevillageofmillbrook.com>.

Sears, Anne, Kristy Lawrie Gravlin, Jeanne Valentine, and Plano Community Library District, *Images of America – Plano*. Arcadia Publishing, 2012.

HISTORIC ILLINOIS ENGINEERING RECORD

INDEX TO PHOTOGRAPHS

Millbrook Bridge
Shuh Shuh Gah Forest Preserve
Millbrook
Kendall County
Illinois

HIER No. KE-2018-2

INDEX TO PHOTOGRAPHS

Christopher Flynn, Photographer, March 2020

KE-2018-2-1	General view of east and center spans from the north.
KE-2018-2-2	General view of west and center spans from the south.
KE-2018-2-3	View of bridge from east end to west end.
KE-2018-2-4	Approach to east end of bridge to west.
KE-2018-2-5	Approach to west end of bridge to southeast.
KE-2018-2-6	View of road decking to east.
KE-2018-2-7	East end masonry abutment, north side.
KE-2018-2-8	East center masonry abutment, south side.
KE-2018-2-9	West end cement abutment, south side.
KE-2018-2-10	East end pin connection.
KE-2018-2-11	West end riveted connection.
KE-2018-2-12	North side of east span, showing upper chord, posts, bracing, and railing.
KE-2018-2-13	South side of west span showing upper and lower chords, posts, bracing, deck, and railing.

KE-2018-2-14	East end of bridge, facing to the west.
KE-2018-2-15	West end of bridge showing upper lateral bracing, portal bracing and struts, facing to the west.
KE-2018-2-16	East and center spans rails, facing to the southwest.
KE-2018-2-17	West span rails, facing to the north.
KE-2018-2-18	Junction of center and west spans rails, facing to the north.
KE-2018-2-19	Dedication plaque at west end of bridge, facing to the east.



KE-2018-2-1



KE-2018-2-2



KE-2018-2-3



KE-2018-2-4



KE-2018-2-5



KE-2018-2-6



KE-2018-2-7



KE-2018-2-8



KE-2018-2-9



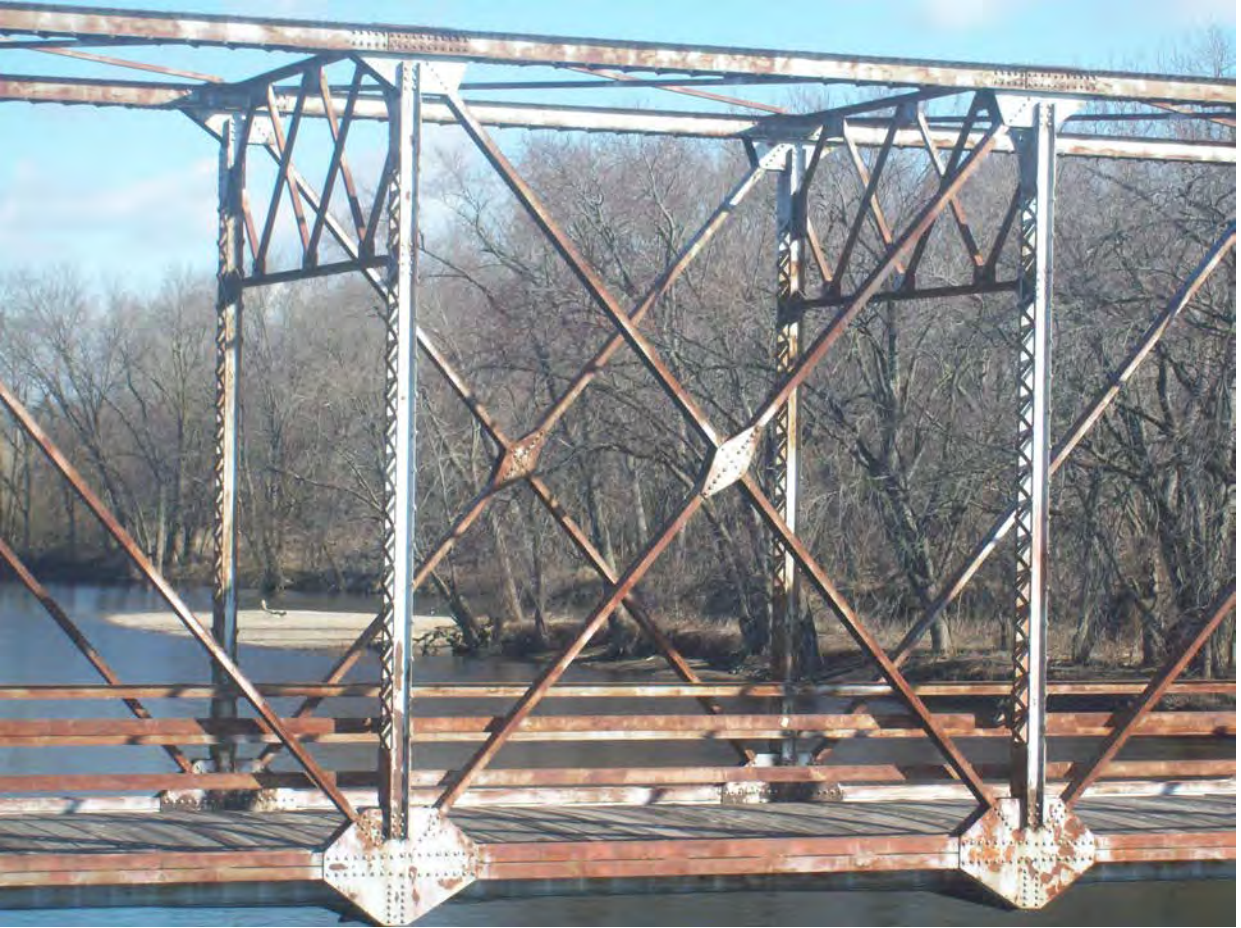
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KE-2018-2-11



KE-2018-2-12



KE-2018-2-13



KE-2018-2-14



KE-2018-2-15



KE-2018-2-16



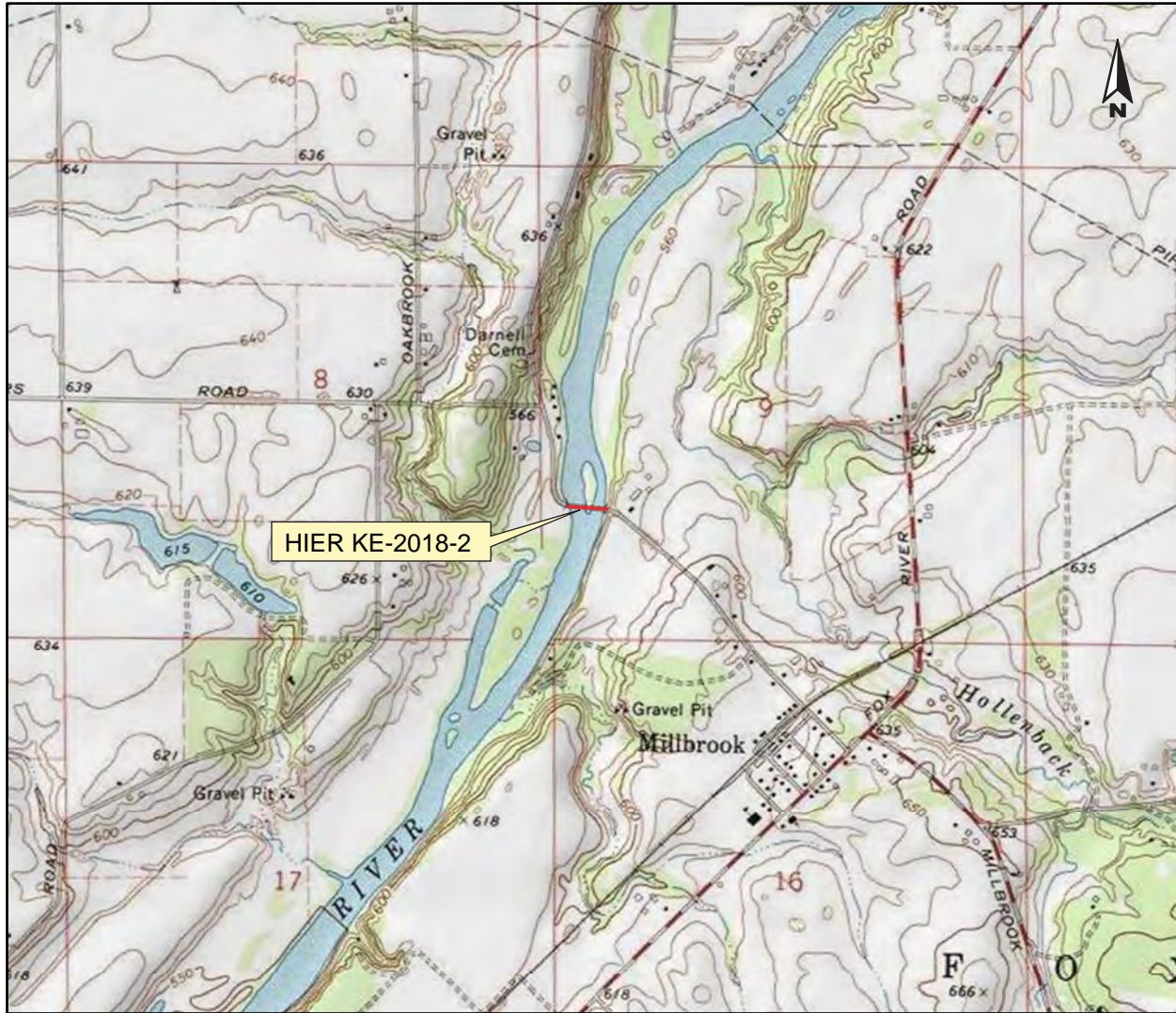
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KE-2018-2-18



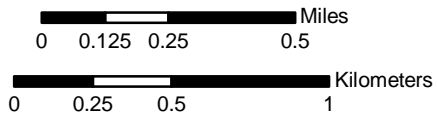
KE-2018-2-19



MILLBROOK BRIDGE
 Shuh Shuh Gah Forest Preserve
 Millbrook
 Kendall County
 Illinois



NEWARK QUADRANGLE
 KENDALL COUNTY - ILLINOIS
 7.5 MINUTE SERIES (TOPOGRAPHIC)1971

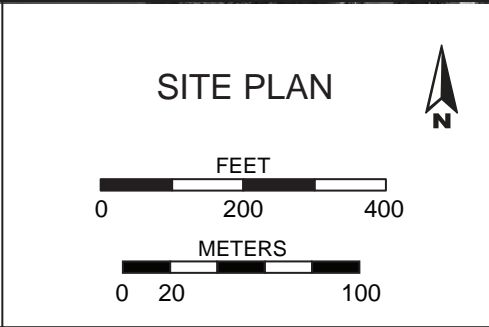


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 KE-2018-2

Sheet 1 of 1

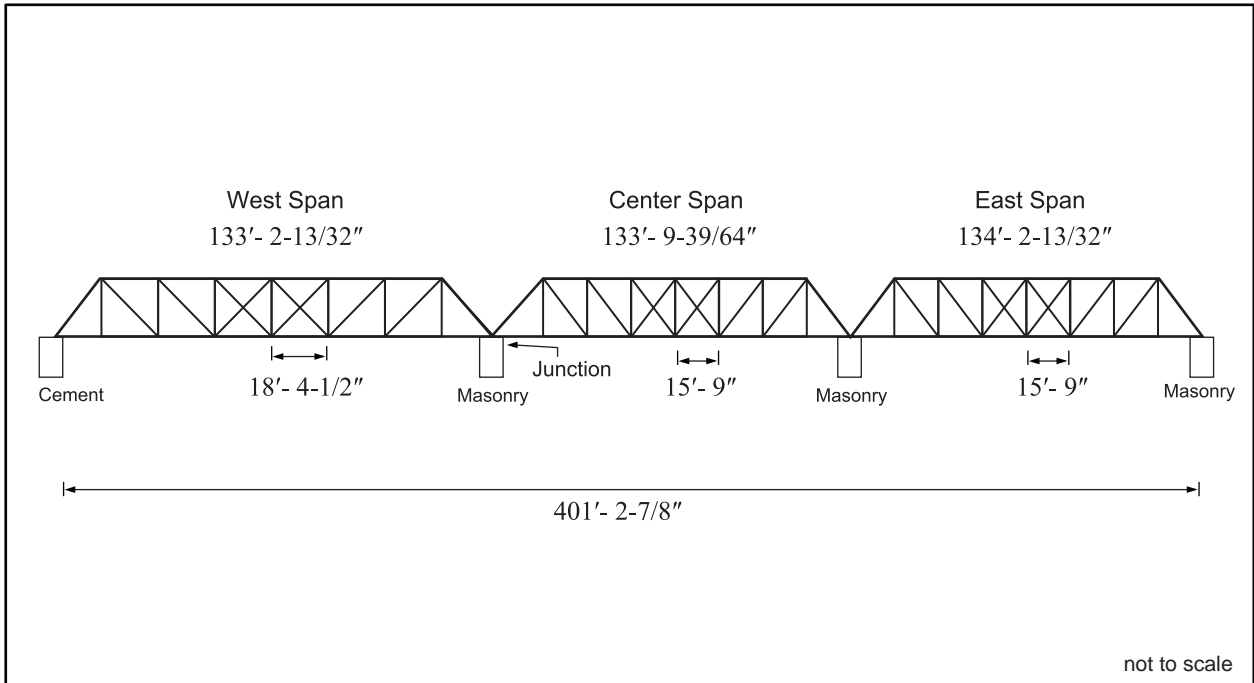


MILLBROOK BRIDGE
 Shuh Shuh Gah Forest Preserve
 Millbrook
 Kendall County
 Illinois



HIER No. KE-2018-2

Sheet 1 of 1



MILLBROOK BRIDGE
 Shuh Shuh Gah Forest Preserve
 Millbrook
 Kendall County
 Illinois

SKETCH

HIER No. KE-2018-2

Sheet 1 of 1

20-025

Photography Record

Camera Description:

Exp.	Project	Initials	Date	Direction	Description
1.	20-025	CF	3/4/20	S	OLD WHITFIELD RD. TO W-END OF BRIDGE TO S
2.				SE	APPROACH TO W-END OF BRIDGE TO SE
3.				E	W-END BRIDGE DEDICATION PLAQUE TO E
4.				E	WEST END TO EAST END TO E
5.				N	WEST END DETAIL LOOKING UP RIVER TO N
6.	PLANKS: 16'x12"x3"			E	PLANK DECKING TO E
7.	LIMESTONE SCOURED BY ^{FLOOD} WATERS			E	WEST CENTER ABUTMENT N-SIDE TO E
8.	LIMESTONE w/ CONCRETE CAP.			E	E-END, N-SIDE ABUTMENT TO E
9.				E	E-END, S-SIDE ABUTMENT TO E
10.				E	E-END DIAGONAL EMBOSSED w/ "CARNEGIE" TO E
11.				W	EAST END TO WEST END TO W
12.	"MILLHURST RD" ON 1870 PAT.			E	FROM E-END TO OLD WHITFIELD RD. TO E
13.				NW	EAST SECTION - SIDE RAILS TO NW
14.				SW	EAS SECTION - SIDE RAILS TO SW
15.				W	BASE CROSS-STRUCTURE E SECTION, N-SIDE TO W
16.				W	BASE CROSS-STRUCTURE E SECTION, S-SIDE TO W
17.				SW	E-SECTION - PLANK DECKING TO SW (16'x12"x3")
18.				NW	E-END OVERHEAD STRUCTURE TO NW
19.				NW	E-END RIVET/BENDING DETAIL TO NW
20.				NW	E-END OVERHEAD STRUCTURE DETAIL TO NW
21.				NW	E-SECTION, N-SIDE TO NW
22.				NW	E-SECTION, N-SIDE TO NW
23.				SW	E-SECTION, S-SIDE TO SW
24.				E	DIAGONAL SECTION-END MEASUREMENT 1 - TO E
25.				N	DIAGONAL SECTION-END MEASUREMENT 2 - TO N
26.				N	SIDE RAIL MEASUREMENT 1 TO N
27.				NW	SIDE RAIL MEASUREMENT 2 TO NW
28.				W	BASE CROSS-SUPPORT S-SIDE TO W
29.				E	CENTER SECTION VERTICAL-MEASUREMENT 1 TO E
30.				N	CENTER SECTION VERTICAL-MEASUREMENT 2 TO N
31.				N	CENTER SECTION VERTICAL-MEASUREMENT 3 TO N
32.				N	CENTER SECTION VERTICAL-MEASUREMENT 4 TO N (12")
33.				NW	W-END OF EAST SECTION DETAIL TO NW
34.				E	EAST SECTION FROM W- TO E.
35.				N	METAL DECK STRIP JOINING EAST & CENTER SECTIONS TO N
36.				W	CENTER AND WEST SECTIONS TO W
37.				W	CENTER & WEST SECTIONS - STRUCTURE, TO W
38.				N	CENTER SECTION E-END DETAIL TO N
39.				N	CENTER SECTION E-END DETAIL TO N
40.				N	CENTER SECTION SIDE-RAILS & VERTICAL DETAIL TO N
41.				N	CENTER SECTION CROSS-TENSION BARS TO N
42.				S	CENTER SECTION CROSS-TENSION BARS TO S

20-025

Photography Record

P.2

Camera Description:

Exp.	Project	Initials	Date	Direction	Description
1.43	20-025	CF	3/4/20	E	EAST-CENTRAL ABUTMENT (AT ISLAND) N-SIDE, TO E
2.44		Limestone		E	EAST-CENTRAL ABUTMENT S-SIDE, TO E
3.45		Limestone		W	EAST-CENTRAL ABUTMENT S-SIDE TO W
4.46				E	CENTER SECTION END DIAGONAL MEASUREMENT 1 - TO E
5.47				N	CENTER SECTION END DIAGONAL MEASUREMENT 2 - TO N
6.48				DOWN	EAST & CENTER SECTIONS JUNCTURE N-SIDE, FACING DOWN
7.49				DOWN	EAST & CENTER SECTIONS JUNCTURE S-SIDE, FACING DOWN
8.50				W	CENTER SECTION TO WEST SECTION TO W
9.51				W	CENTER SECT. TO WEST SECTION - STRUCTURAL CHANGES - TO W
10.52				W	WEST SECTION FROM E - TO W.
11.53				S	METAL DECK STRIP JOINING CENTER & WEST SECTIONS - TO S
12.54				S	JUNCTURE OF CENTER & WEST SECTIONS TO S
13.55				N	JUNCTURE OF CENTER & WEST SECTIONS TO N
14.56		Limestone		W	WEST CENTRAL ABUTMENT N-SIDE (WATER SCOURED) TO W
15.57				W	WEST CENTRAL ABUTMENT S-SIDE DETAIL. TO W
16.58				E	CENTER & WEST SECTIONS JUNCTURE N-SIDE, TO E
17.59				W	CENTER & WEST SECTIONS JUNCTURE S-SIDE, TO W
18.60				N	WEST SECTION - E-END STRUCTURE DETAIL TO N
19.61				N	WEST SECTION E-END STRUCTURE DETAIL TO N
20.62				W	WEST SECTION VERTICALS MEASUREMENT 1 - TO W
21.63				S	WEST SECTION VERTICALS MEASUREMENT 2 - TO S
22.64				W	WEST SECTION S-SIDE, SIDE RAILS TO W
23.65				N	WEST SECTION STRUCTURE DETAIL TO N
24.66				N	WEST SECTION STRUCTURE DETAIL TO N
25.67				NE	WEST SECTION E-END, CENTER & E SECTIONS - TO NE
26.68				W	WEST SECTION W-END STRUCTURE TO W
27.69		CONCRETE		W	WEST END ABUTMENT, S-SIDE, TO W
28.70		"		W	WEST END ABUTMENT, N-SIDE, TO W
29.71				E	FROM WEST END TO EAST END, TO E
30.72				E	WEST END STRUCTURE TO E
31.73		SUN-BLEACHED PHOTO		E	FROM WEST SECTION ZOOMED TO E-END, TO E
32.74				NW	WEST & CENTER SECTIONS FROM NEW BRIDGE, TO NW
33.75				N	E SECTION, EAST CENTRAL ABUTMENT TO N
34.76				N	EAST SECTION - TO N
35.77				N	EAST & CENTER SECTIONS - TO N
36.78				N	EAST & WEST-CENTRAL ABUTMENTS TO N
37.79				N	CENTER SECTION & CENTRAL ABUTMENTS TO N
38.80				N	WEST CENTRAL ABUTMENT TO N
39.81		NOTE HEIGHT DIFF.		N	JUNCTURE OF WEST & CENTER SECTIONS & ABUTMENT - TO N
40.82				N	WEST SECTION & ABUTMENTS TO N
41.83				N	WEST SECTION TO N
42.84				N	W-SECTION & W-END CONCRETE ABUTMENT - TO N

20-025

Photography Record

Camera Description:

Exp.	Project	Initials	Date	Direction	Description
1.85	20-025	CF	3/4/20	N	WEST SECTION & W-CENTRAL ABUTMENT TO N
2.86	*NOTE	HEIGHT DIFFERENCE		N	JUNCTURE OF CENTER & WEST SECTIONS TO N*
3.87				NE	CENTER & EAST SECTIONS TO NE
4.88				NE	TWO CENTRAL ABUTMENTS TO NE
5.89				NE	WHOLE BRIDGE FROM W TO E, TO NE
6.90				NE	WEST SECTION STRUCTURE DETAIL - TO NE
7.91	SUN BLEACHED PHOTO			NE	CENTER SECTION TO NE
8.92				NE	CENTER & E SECTIONS, & CENTRAL ABUTMENTS TO NE
9.93				NE	WEST & CENTER SECTIONS JUNCTURE TO NE
10.94				N	CENTER & EAST SECTIONS JUNCTURE TO N
11.95				W	OLD WHITFIELD RD TO E-END OF BRIDGE TO W
12.96				W	APPROACH TO E-END OF BRIDGE, TO W
13.97				W	BLOCKED OLD WHITFIELD RD E APPROACH TO BRIDGE, TO W
14.98				W	APPROACH TO E-END OF BRIDGE TO W
15.99				W	EAST END OF BRIDGE TO W
16.100				W	EAST END OF BRIDGE TO W
17.101				W	BRIDGE STRUCTURE FROM E-END TO W
18.102				W	EAST END OF BRIDGE TO W
19.103				W	BRIDGE ZOOMED FROM E-END TO W
20.104				S	VIEW TO BRIDGE FROM UP RIVER (N) - TO S.
21.					
22.					
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41.					
42.					





1897

Commissioners of
Fox Township

H.B. Barnes

E.B. Sleezer

J.D. Russell

A.C. Otto

John Murley

Nels Olson

E.W. Jackson

















































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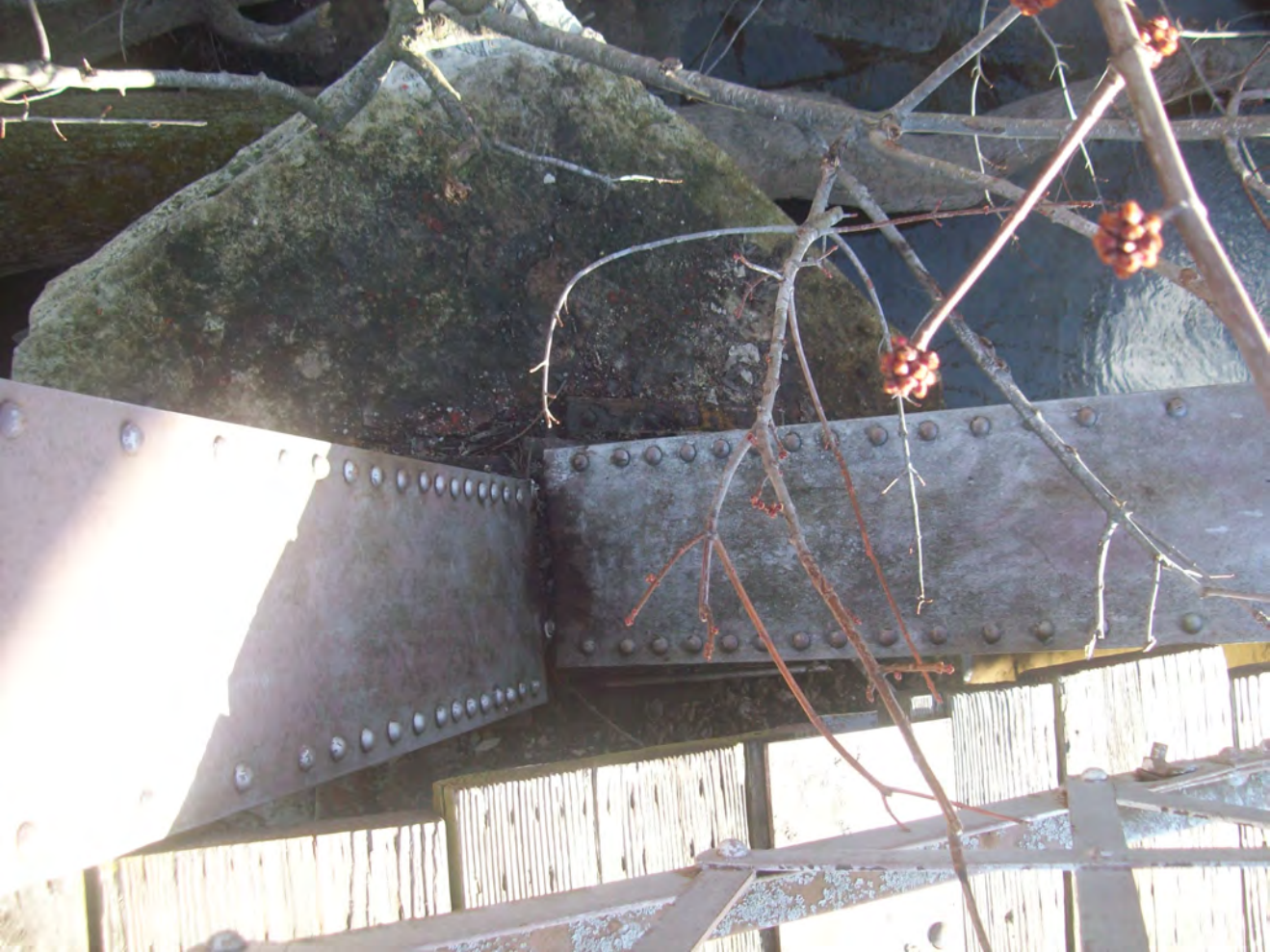




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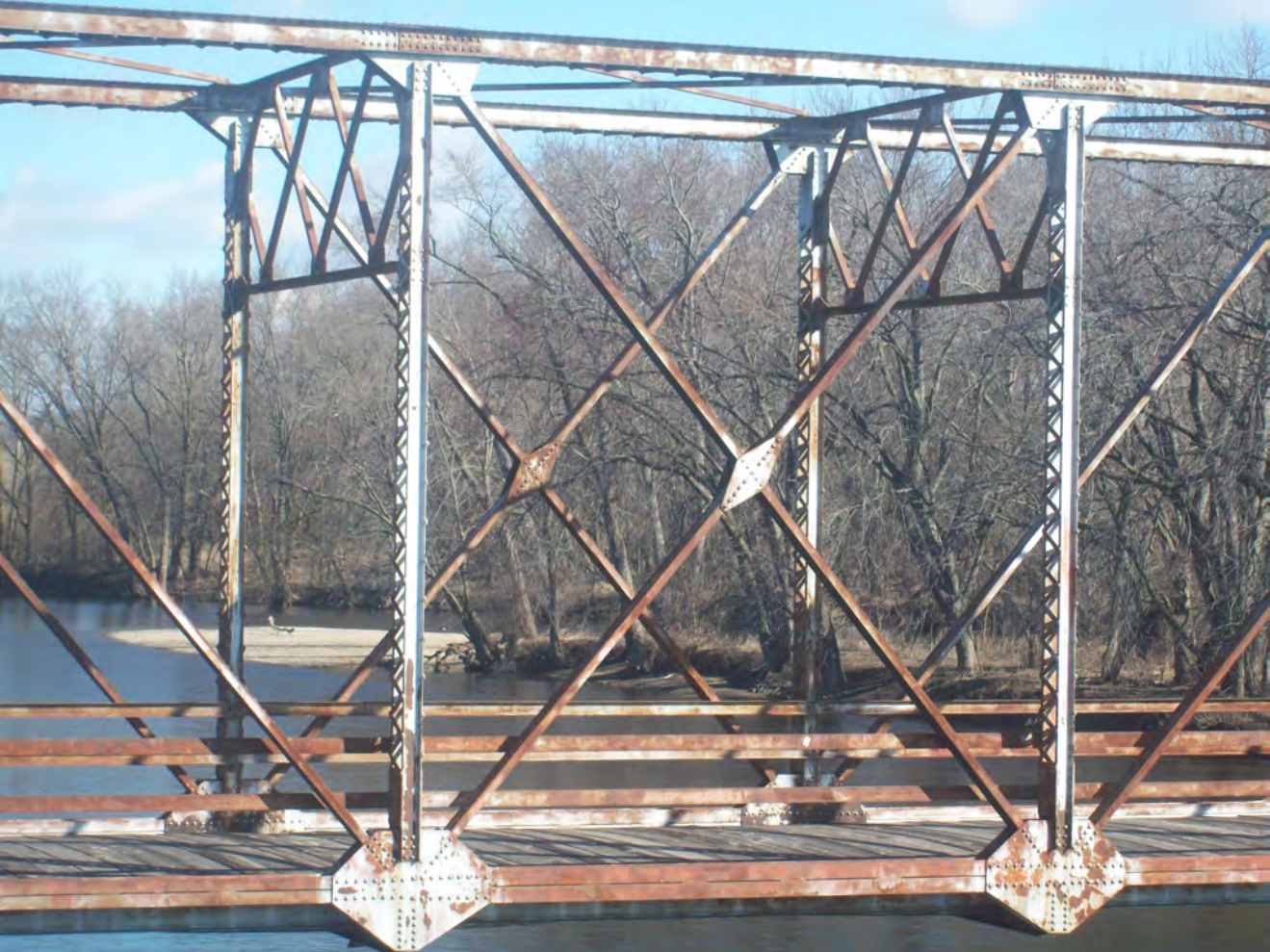
































WARNING
CROSSING
NARROW





WALKING
CROSSING - ONLY
NUMBER 10



