

Wisconsin Department of Transportation
Determination of Eligibility Short Form for Bridges

(Revised Oct. 2019)

Property Name(s): Lynn Line Road Bridge (P-71-914)

Address/Location: Lynn Line Road over the East Fork of the Black River

City & County: Town of Rock, Wood County Zip Code: 54449


Town: 24 N Range: 1E Section: 36

Date of Construction: 1906

WisDOT Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this request for Determination of Eligibility:

- Meets the National Register of Historic Places criteria.
- Does not meet the National Register of Historic Places criteria.

DocuSigned by:

 5F484D7166824F8...

17 october 2021

WisDOT Historic Preservation Officer

Date

State Historic Preservation Office

In my opinion, the property:

- Meets the National Register of Historic Places criteria.
- Does not meet the National Register of Historic Places criteria.



11/4/2021

State Historic Preservation Officer

Date

Comments (FOR AGENCY USE ONLY):

Division of Historic Preservation
State Historical Society of Wisconsin
816 State Street
Madison, WI 53706

Public Owner: Town of Rock, Wood County

Criteria:

<u> </u> A (history)	Areas of Significance:	<u>ENGINEERING</u>
<u> </u> B (important persons)	Period of Significance:	<u>1906</u>
<u> X </u> C (architecture/eng.)	Significant Date:	<u>1906</u>
<u> </u> D (archeology)	Significant Person:	<u>N/A</u>
	Cultural Affiliation:	<u>N/A</u>
	Architect/Builder:	<u>N/A</u>

Classification:

of Contributing Structures 1
of Noncontributing Structures 0

UTM Reference: 15T 713307 4933925
 Zone Easting Northing

Statement of Significance:

The Lynn Line Road Bridge (P-71-914, AHI No. 243004) is recommended eligible for the National Register of Historic Places (National Register) under *Criterion C: Engineering* as an excellent example of a pin-connected, Pratt pony truss dating to 1906, prior to the creation of the Wisconsin State Highway Commission (SHC) and subsequent standardization of truss designs. The truss span and surrounding setting are unaltered and have excellent integrity. Research did not reveal sufficient evidence to support significance under *Criterion A: History* or *Criterion B: Significant Person*. The period of significance is 1906, which corresponds to the bridge's date of construction.

Description

The 1906 Lynn Line Road Bridge (P-71-914) carries Lynn Line Road over the east fork of the Black River in the Town of Rock, Wood County. The structure, which has been closed to traffic since at least 1994, was one lane but supported two-way traffic along the roadway.¹ Lynn Line Road, also called Fairhaven Road or Fair Haven Avenue on some maps, is a minor north-south road between Maple Road/Patton Drive to the north and Poertner Road/Cary Rock Drive to the south. When it was open, the bridge provided access to scattered residential development.²

The Lynn Line Road Bridge is a single-span, steel, pin-connected, Pratt half-hip pony truss with diagonals, stone abutments and wingwalls, and a bituminous deck. The bridge is 43 feet in length and the

¹ "P-71-914 Lynn Line Road over the East Fork of the Black River," *Wisconsin Department of Transportation - Highway Structures Information System*, accessed April 13, 2021, <https://trust.dot.state.wi.us/hsi/HSIController>.

² United States Geological Survey, "USGS Topographic Map: Lindsey, WI," Topographic (U.S. Department of the Interior U.S. Geological Survey, 2018), <https://ngmdb.usgs.gov/topoview/>.

deck measures 16 feet wide. The truss structure consists of three panels with verticals in tension and diagonals in compression, signifying a Pratt truss. The bridge lacks hip vertical members in the end panels, making it a half-hip variation. While all major bridge members are pin-connected, some members are fastened to the pins with riveted and bolted plates. The top chord consists of a pair of back-to-back channels connected by a riveted cover plate above and a series of riveted batten plates below. The bottom chord of the center panel consists of paired eyebars, and the bottom chord of the end panels consists of two angle bars riveted together with batten plates. The verticals are made of paired back-to-back angle bars connected with riveted batten plates. Diagonals in the end panels consist of paired eyebars, and diagonals in the central panel consist of a single eyebar with turnbuckles. The diagonals are connected to the top and bottom chords with pins. The bridge features inclined endposts. The floor system consists of rolled I-beam stringers, rolled I-beam floorbeams, and lateral bracing that support the bituminous deck; floorbeams are riveted to the bottom chord via a plate that hangs from the pin connection. Steel members have a "Jones & Laughlin" imprint, indicating that the Jones & Laughlin Steel Company of Pittsburgh manufactured the individual truss components.

The bridge sits on stone abutments with wingwalls and concrete caps. The structure's bearings are nestled in the abutments and covered with vegetation and were not visible in the field. Railings on either side of the bridge deck consist of two channel members that are bolted to major steel members. A small fragment of a bridge plate reading "WIS" remains at the northwest top chord. Alterations to the structure are limited to the replacement deck. Modern guardrail has been placed at the northern and southern ends of the bridge to prevent crossings since it is now closed to traffic.

History

The Town of Rock was organized in 1878 and the unincorporated community of Lindsey was surveyed and platted in 1891.³ Lindsey was a small railroad crossroads community along the Milwaukee, Dexterville, and Northern Railway, which later became the Chicago, Milwaukee, St. Paul, and Minneapolis Railroad or Milwaukee Road.⁴ In 1906 the Town of Rock planned to erect a truss bridge across what is now the east fork of the Black River approximately 3 miles southwest of Lindsey, along the county line between Wood and Clark Counties. At that time the waterway may have been known as Rocky Run or Lindsey Creek.⁵

Several articles in *The Marshfield News* appear to report the construction of the Lynn Line Road Bridge in 1906.⁶ An August 9 column describes that "piers are completed," referring to the stone abutments, and another on August 30 announces that the metal truss members arrived in Lindsey. Finally, on September 6, the newspaper reports that a "Mr. Clark from Milwaukee" assembled what it describes as the "iron

³ Robert S. Rudolph, *Wood County Place Names* (Madison, Wis.: University of Wisconsin Press, 1970), 70, <https://www.mcmillanlibrary.org/files/docs/placenames.pdf>; George O. Jones, *History of Wood County, Wisconsin* (Minneapolis, Minn.: H.C. Cooper, Jr. and Co., 1923), 275, <http://digital.library.wisc.edu/1711.dl/WI.JonesHist>.

⁴ "Wood County," *Master List of Wisconsin Logging Railroads*, n.d., <https://sassmaster.tripod.com/wood.html>.

⁵ Rudolph, *Wood County Place Names*, 70–71; "West Rock," *The Marshfield News*, August 9, 1906.

⁶ Because some details do not match the Lynn Line Bridge (the article describes an iron bridge across "Lindsey Creek"), it can't be confirmed that these articles reference the subject property; however, given the year and general location described it is exceedingly likely that they do.

work” for the bridge.⁷ Despite this mention in the newspaper, the original bridge builder is not known. Remnants of a bridge plate were observed in the field, but only retains the letters “WIS” and did not identify a specific builder, and likely referred to the bridge number or location. A steel imprint from the Jones & Laughlin Steel Company of Pittsburgh on a floorbeam indicates that that company provided the structural steel for the truss. The configuration of the bridge and its mixture of pinned, riveted, and bolted connections, which appear to be original, suggest that some elements may have been shop-riveted with the larger pieces bolted together on location using hexagonal bolts. This “pre-assembly” was a common fabrication technique for truss bridges in Wisconsin.⁸

Research did not reveal additional information about the Lynn Line Road Bridge following its construction. The crossing was closed to traffic by 1994 according to Wisconsin Department of Transportation (WisDOT) records.⁹ The surrounding area, including nearby Lindsey, remains sparsely developed.

Engineering

American engineers Thomas and Caleb Pratt patented the Pratt truss design in 1844, which is characterized by the use of vertical compression members and diagonal tension members. This was a common truss design used across Wisconsin; of 996 pre-1941 trusses identified in a 1983 statewide survey, 322 were Pratt variations. Of these Pratt trusses, 199 were pony spans and 125 of those were half-hip variations.¹⁰ Although Pratt trusses were once widespread, the majority have since been replaced. A search of the Wisconsin Historic Preservation Database shows only two remaining pony trusses in Wood County, neither of which are Pratts.

The Lynn Line Road Bridge displays the basic Pratt pony truss design and appropriate construction techniques. It is distinguished among Pratt pony truss examples by its primary pinned connections, which are characteristic of early trusses built before the formal establishment of the SHC in 1911 and subsequent development of standardized bridge designs. The SHC’s standard pony truss plan, used from the mid-1910s forward, was a Warren truss with riveted connections, and state engineers were advocating for primary riveted truss connections as early as 1908.¹¹ Therefore, the Lynn Line Road Bridge with its Pratt truss and main pinned connections represents early truss designs from the “pre-standardization” era prior to widespread SHC trusses.

⁷ Note that while there are a few inconsistencies in the articles (they describe an iron bridge while it is steel and locate it on the township line while it is a mile north of that), it is believed the articles describe the subject bridge due to the date and general location described. “West Rock”; “Lindsey,” *The Marshfield News*, August 30, 1906; “Lindsey,” *The Marshfield News*, September 6, 1906.

⁸ Wisconsin Department of Transportation, *Historic Highway Bridges in Wisconsin, Volume 2: Truss Bridges* (Madison, Wis.: Wisconsin Department of Transportation, 1998), 75.

⁹ “P-71-914 Lynn Line Road over the East Fork of the Black River.”

¹⁰ Wisconsin Department of Transportation, *Historic Highway Bridges in Wisconsin, Volume 2: Truss Bridges*, 44, 7.

¹¹ Wisconsin Department of Transportation, *Historic Highway Bridges in Wisconsin, Volume 2: Truss Bridges*, 52.

Bibliography

Jones, George O. *History of Wood County, Wisconsin*. Minneapolis, Minn.: H.C. Cooper, Jr. and Co., 1923. <http://digital.library.wisc.edu/17111.dl/WI.JonesHist>.

"Lindsey." *The Marshfield News*, August 30, 1906.

"Lindsey." *The Marshfield News*, September 6, 1906.

"P-71-914 Lynn Line Road over the East Fork of the Black River." *Wisconsin Department of Transportation - Highway Structures Information System*. Accessed April 13, 2021. <https://trust.dot.state.wi.us/hsi/HSIController>.

Rudolph, Robert S. *Wood County Place Names*. Madison, Wis.: University of Wisconsin Press, 1970. <https://www.mcmillanlibrary.org/files/docs/placenames.pdf>.

United States Geological Survey. "USGS Topographic Map: Lindsey, WI." Topographic. U.S. Department of the Interior U.S. Geological Survey, 2018. <https://ngmdb.usgs.gov/topoview/>.

"West Rock." *The Marshfield News*, August 9, 1906.

Wisconsin Department of Transportation. *Historic Highway Bridges in Wisconsin, Volume 2: Truss Bridges*. Madison, Wis.: Wisconsin Department of Transportation, 1998.

"Wood County." *Master List of Wisconsin Logging Railroads*, n.d. <https://sassmaster.tripod.com/wood.html>.

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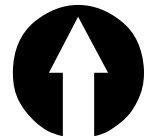


15T 713307 4933925

0 0.375 0.75 1.5 Miles

Lindsey USGS 7.5' Quadrangle

WisDOT ID 7397-01-00
Lynn Line Road Bridge Replacement, P-71-914
Town of Rock, Wood County



Photographs

Lynn Line Road Bridge (P-71-914, AHI No. 243004)
Lynn Line Road over the East Fork of the Black River
Town of Rock, Wood County, Wisconsin
Photographer: Mead & Hunt, Inc., March 2021
Digital files in the collection of Mead & Hunt, Inc.

Photograph 1 of 11

Overview, approach, and northwest elevation, view facing south

Photograph 2 of 11

Southeast elevation and abutments, view facing north

Photograph 3 of 11

Detail of top chord, major pin connection, and riveted and bolted members

Photograph 4 of 11

Detail of bottom chord, vertical and diagonal members, and pin connection

Photograph 5 of 11

Detail of central truss panel on southeast elevation, view facing north

Photograph 6 of 11

Detail of pinned connection where bottom chord, main verticals, diagonals, and floorbeams meet

Photograph 7 of 11

Floor system with rolled I-beam stringers, floorbeams, and lateral bracing, view facing north

Photograph 8 of 11

Northeast stone abutment and wingwall, view facing north

Photograph 9 of 11

Bridge railing, view facing northwest

Photograph 10 of 11

Detail of bridge plate fragment

Photograph 11 of 11

Replacement deck with bituminous surfacing, view facing northeast



Photograph 1 of 11. Overview, approach, and northwest elevation, view facing south.



Photograph 2 of 11. Southeast elevation and abutments, view facing north.



Photograph 3 of 11. Detail of top chord, major pin connection, and riveted and bolted members.



Photograph 4 of 11. Detail of bottom chord, vertical and diagonal members, and pin connection.



Photograph 5 of 11. Detail of central truss panel on southeast elevation, view facing north.



Photograph 6 of 11. Detail of pinned connection where bottom chord, main verticals, diagonals, and floorbeams meet.



Photograph 7 of 11. Floor system with rolled I-beam stringers, floorbeams, and lateral bracing, view facing north.



Photograph 8 of 11. Northeast stone abutment and wingwall, view facing north.



Photograph 9 of 11. Bridge railing, view facing northwest.



Photograph 10 of 11. Detail of bridge plate fragment.



Photograph 11 of 11. Replacement deck with bituminous surfacing, view facing northeast.