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United States Department of the Interior National Park Service

National Register of Historic Places **Continuation Sheet**

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 98000877

Date Listed: 8/3/98

Green Bay Road Bridge Property Name

Manitowac County State

Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Soland

Signature of the Keeper

Amended Items in Nomination:

The nomination gives a sixty year period of significance, although the bridge is significant under criterion C for engineering, and not for a "pattern of events" under criterion A. The accurate period of significance is 1887, the date of construction.

This information was verified by Jim Draeger of the WI SHPO staff.

DISTRIBUTION: National Register property file Nominating Authority (without nomination attachment) NPS Form 10-900 (January 1992) Wisconsin Word Processing Format (Approved 1/92)

United States Department of Interior National Park Service

National Register of Historic Places Registration Form

	OMB No. 10024-00	118
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NAT	REGISTER OF HISTORIC PLACES NATIONAL PARK SERVICE	

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How* to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

 historic name
 Green Bay Road Bridge

 other names/site number
 Mill Street Bridge DOT # P36-022

2. Location

street	& number	Mill Street at	Manit	owoc Riv	ver					N/A	not for p	ublication
city or	r town	Town of Man	itowoc	Rapids	and	City	of	Manitowoc		N/A	vicinity	
state	Wisconsin	code	WI	county	Ma	anitowo	2		code	071	zip code	54220

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this \underline{X} nomination _ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property \underline{X} meets does not meet the National Register criteria. I recommend that this property be considered significant _ nationally \underline{X} statewide _ docally (See continuation sheet for additional comments)

	GS	98
Signature of certifying official/Tile	Date	e
Deputy State Historic Rreservation Officer-WI		

State or Federal agency and bureau

In my opinion, the property _ meets _ does not meet the National Register criteria. (_ See continuation sheet for additional comments.)

Signature of commenting official/Title

Date

State or Federal agency and bureau

Name of Property

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Manitowoc

Wisconsin

	_	
County	and	State

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National Register.		
See continuation sheet.		
determined not eligible for the National Register.	- <u>-</u>	······································
See continuation sheet.		
removed from the National		
Register.		
other, (explain:)		
	Signature of the	Keeper Date of Action
5. Classification		
Ownership of Property	Category of Property	Number of Resources within Property
(check as many boxes as	(Check only one box)	(Do not include previously listed resources
as apply)		in the count)
private	building(s)	contributing noncontributing
X public-local	district	buildings
public-State	X structure	sites
public-Federal	site	1 structures
	object	objects
		1 0 total
		Number of contributing resources is previously listed in the National Register
Enter "N/A" if property not		Number of contributing resources is previously listed in the National Register
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Narrative Description

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(Describe the historic and current condition of the property on one or more continuation sheets.)

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National Register of Historic Places Continuation Sheet

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Page_1_Green Bay Road Bridge, City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

Introduction

The Green Bay Road Bridge, which crosses the Manitowoc River between the Town of Manitowoc to the southwest and the City of Manitowoc to the northeast, is an early single-span Pratt through truss bridge, built in 1887 by the Wisconsin Bridge and Iron Company of Milwaukee, Wisconsin. The bridge is located immediately west of the present County Trunk Highway R bridge, a concrete span constructed to bypass this portion of the historic road in 1956.¹ As a result of the new route, the area adjoining the bridge to the north includes some historic buildings and properties mixed with newer roadside-oriented construction, while the area to the south includes a historic mill building, a small DNR-owned preserve and several residential buildings. The bridge is located on its original site, and demonstrates excellent physical and situational integrity. Although some alterations to the bridge's subflooring and deck have taken place, these are non-intrusive and do not detract from the bridge's distinctive appearance and integrity.

Physical Context:

The Green Bay Road Bridge spans the Manitowoc River in a northeasterly direction, crossing the river at a slight angle. A series of rapids at this location are still visible nearby; these rapids spurred water-powered industry and settlement in the immediate area as early as the 1830s. The road through this location was originally surveyed in 1839 as part of the military road connecting Fort Howard, near Green Bay, with Fort Dearborn at present-day Chicago. The river was bridged at this site as early as 1848;² the present bridge replaced an earlier wooden structure at the site. The road approaching the bridge from the south passes through a narrow valley, rising slightly before reaching the bridge. The bridge is adjoined by a single large residential property to the southeast, which also borders the river. Although the buildings on this property are not historic, they are located at a distance from the bridge and river and do not impact the bridge's context. The road is bordered on the southwest side by a small preserve maintained by the Wisconsin Department of Natural Resources; this reserve has no buildings near the bridge and consists of a small woods and a grassy area adjoining the river. Both of these parcels historically functioned as farm fields throughout the bridge's period of historic significance;³ their current non- farming uses, as a result, have little impact on the bridge's context. Immediately north of the bridge Mill Street intersects a street grid developed as the village of Manitowoc Rapids, which was annexed by the City of Manitowoc in 1958. Although County Trunk Highway R, which bypasses Mill Street and crosses it at the first major intersection two blocks north of the bridge, has a substantial concentration of roadside businesses of recent vintage, the streets immediately adjoining Mill Street and the river are predominately occupied by historic-era residential and agricultural buildings.

¹ Although County Trunk Highway R predominately follows the route of the former Green Bay Road, it does bypass several lengths of that road that passed through less than optimal locations for modern road-building. The portion of the road leading to the Green Bay Road Bridge was bypassed due to its location in a narrow alley next to the Manitowoc River; this portion was renamed Mill Road, for a historic mill still located in this vicinity. The bridge, as a result, has become commonly known as the Mill Street Bridge.

² Louis Falge., ed. <u>History of Manitowoc County, Wisconsin</u> (Chicago: Goodspeed Historical Association, reprinted in 1976 by Manitowoc County Genealogical Society) 1911-12, reprint by MCGS 1976, p. 107.

³ "Town of Manitowoc Rapids, "<u>Plat Book of Manitowoc and Calumet Counties</u> (Chicago: Chas. M. Foote, Publisher), 1893.

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Page 2 Green Bay Road Bridge. City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

The Manitowoc River is bridged at two locations in close proximity to the Green Bay Road Bridge. The nearest is located on County Trunk R, immediately west of the adjoining residential parcel described previously. Built in 1956, this bridge is a two-lane concrete span constructed to bypass the stretch of road now known as Mill Street. The second is located approximately one and one-half miles to the west, beyond a bend in the river. This bridge is a four-lane concrete structure similar in appearance to the County Trunk R bridge; it was constructed in 1986. Known locally as the Broadway Bridge, this structure replaced a single-lane. double-span Pratt through truss constructed by the same company as the Mill Street Bridge in 1886. This historic bridge was demolished due to safety and traffic concerns in 1986. The Green Bay Road Bridge is understood to have good contextual integrity.

II: General Features:

The Green Bay Road Bridge is an early example of a one-lane, single-span Pratt through truss bridge. It has undergone relatively few alterations since its construction in 1887: those alterations that have taken place generally affect the road deck and its substructure and have had little impact on the bridge's overall appearance. The bridge is approximately 150 feet long and has a roadway width of 15 feet;⁴ its truss system consists of six panels. As in most Pratt and Pratt-derived trusses, the compressive members, consisting primarily of the vertical posts and inclined end posts, are apparent by their size and mass, while the diagonal members in tension consist of relatively narrow bars and rods.

III: Trusses:

The upper and lower chords and the posts are built up of smaller members in a manner typical of truss bridges of this early era. The upper chords consist of four separate pieces: two channels connected across the upper surface by a thirteen inch coverplate and tied at intervals across their lower surfaces by 7.5 inch brackets.⁵ The lower chords consist of solid paired beams; the sub-decking features will be described below. With the exception of the vertical posts adjoining the end posts, all of the posts and the diagonal end posts each consist of a pair of large channel beams tied together by two sets of short, flat iron bars running the length of either side of the pair of channel beams. The bars on each side of a pair of channel beams are arranged in a triangular pattern, with the pattern on either side being staggered from the other, creating a lattice-like visual effect. The dimensions of the channels in the posts vary slightly to accommodate differences in compressive force along the length of the bridge; they vary from five inches in width at the center posts to nine inches at the inclined end posts.⁶ The struts connecting the upper chords at the posts are constructed in a similar manner, but they consist of pairs of smaller-dimension channel beams tied together by a single set of flat bars. At the third post from either end, the struts are doubled, with the lower of the two approximately four feet below the level of the rest; these anchor the sway bracing, described below. The portals exhibit a more ornate doubling of the portal strut; these features will be described in more detail below.

The bridge's diagonals, its top lateral bracing and its portal bracing consist of narrow-dimension

⁶ ibid.

⁴ State of Wisconsin, Department of Transportation. "Annual Bridge Inspection Report," Mill Road Bridge, 1979. Copy located in collection of Manitowoc County Historical Society.

⁵ ibid.

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Page 3 Green Bay Road Bridge. City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

round eyebars arranged singly or in pairs. The top lateral bracing consist of single pairs of threaded rods placed on opposing diagonals across the length of every panel. The portal bracing and the sway bracing between the third sets of posts from each end, described above, each consist of a single pair of threaded bars crossing the space between the doubled struts. Each panel's diagonal is made up of a pair of square eyebars, more massive thant the bracing rods; each pair is connected to the joint between the posts and chords by pins and extend from the upper corner of the landward side of the panel to the lower corner closest to the bridge's center. In accordance with usual Pratt truss design, the hip verticals, which are the vertical posts nearest the inclined end posts, are not compressive members:⁷ thus each of these posts consists of a single square eyebar. All of these features are intact and original to the structure.

III: Portals

The Green Bay Road Bridge has identical portals at either end; these are the bridge's most ornamented and most readily identifiable unique features. Each portal is framed on either side by the inclined end posts, described previously, and is surmounted by a portal strut. The portal struts, although of the same basic construction as the bridge's other struts, have considerable more visual elaborateness. While the other struts consist each of two narrow channel beams tied together by flat bars arranged in a triangular pattern, each of these triangles on the portal struts are bisected by an identical flat bar. Flat bars of the same dimensions are arrayed across the top in sets of three, joined to the nexus of the lower sets of bars at their intersection with the upper channel beams, this effect is interrupted by a triangular plaque which rises from the uppermost channel beam. The corners of each triangle are decorated with a raised sunburst motif, and the text at the center is framed by a polygonal shape whose concave corners slightly break the plane of the triangle. The text reads:

1887 BUILDERS WISCONSIN BRIDGE & IRON CO. MILWAUKEE WIS.

The plaques appears to be made of the same iron as the rest of the bridge superstructure, and both plaques and decorative features are completely intact on both portals.

As mentioned previously, both portal struts are doubled, with the second strut at each portal located on a plane with the other doubled struts as described previously. Both struts at each portal are linked by a pair of diagonal portal braces made of narrow rods. These doubled struts are constructed of narrow channel bars and are similar in proportion in their center portions to the double struts in the middle of the bridge, but the second strut at each portal commences at each inclined end post and is considerably wider than at the middle. Over a distance of about two feet the lower channel bar rises toward the upper and is bent to parallel the upper across the center of the portal. The entire space between these two bars is filled with a lattice-like web of flat iron bars of approximately the same width as those previously described. This lattice serves the same unifying effect as the triangular pattern of ties describes previously, and is functional as well as decorative in effect. These, also, have not been altered. A wooden clearance sign traverses each portal below the second strut; these have been

⁷T. Allan Comp et al., "Bridge Truss Types: a Guide to Dating and Identifying," Number 95, <u>AASLH Technical Leaflet</u>, American Association for State and Local History (Nashville, TN: 1977), n.p.

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Page <u>4</u> Green Bay Road Bridge, City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

placed within the last twenty years in order to discourage truck traffic. With this exception, the portals remain nearly unaltered and present some of the bridge's most readily identifiable features.

IV: Deck and road features

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Those portions of the Green Bay Road Bridge that come in direct contact with vehicular and pedestrian traffic have, not unexpectedly, undergone the most extensive alterations; these alterations are unobtrusive and do not significantly impact the structure's historic integrity. The bridge deck is constructed of lumber planks approximately six inches wide and three inches thick, which are overlaid with a one inch layer of bituminous paving material. The paving materials have undergone considerable deterioration: the condition of the wood substructure appears to have deteriorated as well. It is not known, but it is unlikely, that the wood substructure is the bridge's original decking. The decking however, has probably not been replaced since the end of the bridge's period of significance.

A set of steel railings and wood curbs are also located on the bridge's deck: the date of installation of these features cannot be determined but they appear to be non-historic installations stemming from changes in safety requirements for bridges. The curbs are constructed of one-inch-by-one-inch lumber nailed at the ends of each timber to short blocks attached to the wood decking. These extend along the roadway on both sides, uninterrupted except for one segment near the center of the west side, which is missing. The utilitarian railings rise from the decking outside of the curbs, and consist of three horizontal rails supported by similar, simple posts; they are bolted to the bridge's posts at their points of intersection. Although the both curbs and railings are believed to be non-historic, they do not substantially impact the bridge's historic appearance or function.

V: Abutments and substructure

The Green Bay Road Bridge, being a single span structure, has no center piers. Its portal ends rest on two massive abutments of rough ashlar Niagara dolomite, which occurs naturally in the Manitowoc area. The stones' limestone mortar is still evident; much has deteriorated and been replaced by liberally-applied concrete. Adjoining the northern abutment is a dry-laid retaining wall constructed of the same stone; this is not historic and unrelated to the bridge's function.

The bridge's substructure is also substantially intact, although it has undergone considerable deterioration due to increasing loads and metal fatigue. The floor beams, which are aligned with and physically tied to the posts and diagonal braces, consist of massive iron plates edged on all sides by a slight flange. These beams' lower edges are slightly convex; their upper edges are straight and support the stringers, a series of beams that in turn support the decking. A pair of threaded sway braces extend diagonally between each pair of floor beams. The floor beams are riveted at each end to an endplate bracket, which projects slightly above the decking and slightly below the lower edge of the floor beam. The truss posts, described previously, are bolted to this bracket along the bracket's entire length. A series of eyebars connect each post at its terminus to the adjoining posts along the length of the roadway; two pairs of eyebars extending from opposing directions are connected by a single large bolt to each of the post's channel bars. All of this substructure is entirely intact with the exception of the southernmost floor beam, which was replaced in recent years due to excessive deterioration. All of the iron members of the Green Bay Road Bridge, both above and below the deck, are unpainted and rusting.

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VI: Conclusion:

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The Green Bay Road Bridge, overall, displays excellent physical and situational integrity, particularly with regard to its truss structure. In general, the overhead portion of the bridge is entirely intact; the deck area and subflooring are also substantially intact, with the few alterations it has undergone stemming from twentieth-century safety regulations and recent structural concerns.

Green Bay Road Bridge Name of Property

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for the National Register listing.)

- ___ A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- __ B Property is associated with the lives of persons significant in our past.
- $\underline{X} C$ Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- __ D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- ___ A owned by a religious institution or used for religious purposes.
- __ B removed from its original location.
- __ C a birthplace or grave.
- __ D a cemetery.
- __ E a reconstructed building, object, or structure.
- __ F a commemorative property.
- __ G less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

Areas of Significance (Enter categories from instructions)

ENGINEERING

Period of Significance

1887-1947

Significant Dates

1887

Significant Person (Complete if Criterion B is marked)

N/A

Cultural Affiliation

N/A

Architect/Builder

Wisconsin Bridge & Iron Co.

Wisconsin

County and State

Manitowoc

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Section_8 Page_1_Green Bay Road Bridge, City of Manitowoc/Town of Manitowoc Rapids, Manitowoc County, Wisconsin.

I. Introduction

The Green Bay Road Bridge (WisDOT id #P-36-022), located across the Manitowoc River between the city of Manitowoc and the Town of Manitowoc Rapids, all in Manitowoc County, Wisconsin, is eligible for inclusion in the National Register of Historic Places under National Register Criterion C at the statewide level of significance, as an excellent early example of a Pratt through truss bridge, one of few remaining in Wisconsin. Built in 1887 by the Wisconsin Bridge & Iron Company of Milwaukee, the bridge is one of the earliest built under this company's name, and was one of two constructed by this firm across the Manitowoc River. The bridge served as a primary artery into the Manitowoc area through the duration of the historic era and until 1956, when this section of the former Green Bay Road was bypassed by construction of County Trunk Highway R.

Little altered since its construction, the bridge consists of a single span with six panels. Its wrought-iron members are arranged in typical Pratt truss fashion, with heavy compression members and light tension members; the relatively small dimensions of all members give the bridge a light, almost lacy appearance such as commonly distinguishes early iron truss bridges from later steel examples. The lacy aspect of the Green Bay Road Bridge is further enhanced by modest decorative work in the upper reaches of the portals surrounding the bridge plates. It is the only remaining through truss non-railroad bridge remaining in the Manitowoc area, and is one of very few pre-standardization highway truss bridges remaining in the state. Although still used for light vehicular traffic, the bridge is expected to be closed in the near future, as a result of structural weakening caused by increasingly heavy loads; it is expected that the bridge will become a pedestrian-only structure and fishing pier.

II. Historical Context: Green Bay Road Bridge

European development in the area of the Green Bay Road Bridge dates from as early as 1837, when a traveler in the region recorded the Manitowoc area as having a total of "one saw mill and two dwellings at Manitowoc Rapids."⁸ The mill and other early businesses located along the river near the present bridge's location in order to tap the water power generated by the rapids; as a result the settlement of Manitowoc Rapids grew quickly during its first decade. Rapids, as it was commonly known, soon became the site of the new county's courthouse,⁹ where it remained until destroyed by fire in 1852. By 1850 the town of Rapids had over 25% more residents than the neighboring town of Manitowoc,¹⁰ but that situation was reversed within a few years as a variety of businesses, no longer dependent on water power, relocated to the new Village of Manitowoc in order to benefit from the Lake Michigan port's easier shipping. The Village of Manitowoc Rapids was annexed to the City of Manitowoc in 1958.

In 1839, surveyors laying what later became known as the Military, or Green Bay Road, crossed the Manitowoc River at approximately the location of the present bridge.¹¹ One of the earliest overland routes in Wisconsin, the Green Bay Road

⁸Ralph Plumb, <u>A History of Manitowoc County</u> (Manitowoc: Brandt Printing & Publishing Co.),1904, p. 20

⁹ Manitowoc County was created as a territorial county in 1836.

¹⁰ *ibid.*, p. 35. According to the 1850 federal census schedules, the Town of Manitowoc had 766 residents, while the Town of Manitowoc Rapids had 966.

¹¹ *ibid.*, p. 42

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Section 8 Page 2 Green Bay Road Bridge. City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

was cut for the purpose of providing a military transport route between Fort Howard at Green Bay and Fort Dearborn at Chicago. As military requirements in the Wisconsin Territory lessened after the late 1830s and 1840s, the road became increasingly important as a route for immigrants, speculators, entrepreneurs and others interested in examining and settling the Wisconsin wilderness beyond the reach of navigable streams. This use appears to have accounted for a significant portion of Manitowoc Rapids' early success. The road, however, remained a substantially primitive highway, and travelers wishing to reach the village of Manitowoc Rapids had to ford the river at this point as late as 1848.

The first bridge at the site of the present Green Bay Road Bridge was built in 1848, and was the first bridge in the county.¹² Bridges at other locations followed quickly, including two others across the Manitowoc River in the same vicinity by 1872.¹³ These bridges were wood spans, probably designed and built locally, and were expected to have a lifespan of seven to ten years.¹⁴

One of these wood bridges, located one mile down river from the Green Bay Road Bridge site and commonly known as the Broadway bridge, for its adjoining street, or the Horseshoe Bridge, for a bend in the road just west of the bridge, was destroyed by high waters in 1885. The river at the Broadway Bridge location is nearly twice as wide as at the Green Bay Road Bridge location, and as a result the longer bridge may have been less stable (there is no evidence of damage to other Manitowoc River bridges in 1885). The Broadway Bridge was an important artery leading to the City of Manitowoc; thus it was understood to be in the county's best interest to replace it quickly and with a substantial structure. As a result, when Town of Manitowoc Rapids chairman Richard Klingholtz proposed construction of a new bridge in May 1885, he recommended an iron truss bridge as a more prudent investment, although an iron truss bridge had apparently never been built before in this county.¹⁵ The greater cost of an iron bridge, however, was several times more that the Town could raise for that purpose; the resulting proposal to split the costs between the town and the county met with considerable resistance. When supervisors protested the amount of money the county was being asked to provide. Klingholtz was adamant in his insistence: "Let us build a bridge which will last a lifetime, and not have any further trouble."¹⁶ A stalemate and subsequent legal battle over the funding allotment ensued, delaying construction of the Broadway Bridge until the following summer.

When these matters were finally settled, the contract for the new bridge was let in 1886 to Friedrich Weinhagen, an agent for the Pennsylvania Bridge Works in Beaver Falls, Pennsylvania.¹⁷ The completed Pratt through truss bridge cost

¹² Louis Falge., ed. <u>History of Manitowoc County, Wisconsin</u> (Chicago: Goodspeed Historical Association, reprinted in 1976 by Manitowoc County Genealogical Society) 1911-12, reprint by MCGS 1976, p. 107.

¹³ E.M. Harney, <u>Map of Manitowoc County</u> 1872.

¹⁴ Manitowoc County Board of Supervisors, Proceedings, May 27, 1885, p. 3

¹⁵ ibid.

¹⁶ *ibid.*, May 28, 1885, p. 4.

¹⁷ Amy A. Ross et. al., "Broadway Street Bridge Spanning the Manitowoc River at Broadway Street." (Madison: Wisconsin Department of Transportation) 1995, p. 7

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Section_8_ Page_3 Green Bay Road Bridge, City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

\$6.600.00, and its two single-lane spans extended 302 feet.¹⁸ In terms of detail and decoration, the Broadway Bridge was virtually identical to the later Mill Street Bridge, which is not surprising in light of the fact that Weinhagen and his brother Reinhold began doing business as the Wisconsin Bridge and Iron Company later that year. Even the bridge plate was identical, the only difference being that the name given as builder was Weinhagen's own, instead of the Wisconsin Bridge and Iron Company.

Despite the acrimony surrounding the Broadway Bridge's construction, and perhaps because of the new bridge's favorable public impression, the Town of Manitowoc Rapids returned to the county board in 1887 with a request for similar assistance in funding construction of a new bridge on the Green Bay Road. Although the Broadway bridge's replacement had been necessitated by its destruction, the Green Bay Road bridge was apparently still functional; the report of the supervisors appointed to review the town's request noted only that "said bridge is in such a condition that public safety requires the erection of a new one."¹⁹ Based on the anticipated cost of \$4,000 for the new bridge, the town apparently intended to obtain another iron truss bridge, although their request made no mention of a preferred type or construction method. The reviewing committee, however, was much more explicit, and clearly espoused the long-term benefits of iron bridge construction on what was then a heavily-traveled road:

We must confess that in our opinion an iron bridge would undoubtedly in time prove the cheapest and the best, and different reasons seem to demand it. The length of the bridge will be at least 150 feet, and if a wooden bridge would be built the middle of the river would partly be blockaded by piles necessary to be driven and prove a bad obstacle in springtime when the ice is breaking up, especially after the bridge has stood it for a number of years...²⁰

Although such a request for the Broadway Bridge only two years before had met with considerable skepticism, the measure to provide half the Green Bay Road Bridge's funding passed immediately, by a two-to-one margin, and a committee was appointed to let the contract and supervise the work. By November 25, the bridge was finished and an invitation issued to the county board to inspect and accept it.²¹ At the next meeting the committee reported in more detail: "...the contract was let to Mr. Weinhagen, the builder of the iron bridge in our county a year ago, and that the price of the contract was \$4075."²² Weinhagen's firm would build at least one more bridge for Manitowoc County, a Pratt standard half-hip pony truss in the Town of Gibson in 1903.²³

²³ Guy Meyer, "Transportation: Iron and Truss Bridges." Barbara Wyatt., ed., <u>Cultural Resources Management in</u> <u>Wisconsin, Vol. 2</u> (Madison: State Historical Society of Wisconsin) 1986, p. 12-12.

¹⁸ *ibid*, p. 3

¹⁹ <u>Proceedings</u>, *op.cit.*, June 2 1887, p. 4

²⁰ ibid.

²¹ *ibid.*, November 25, 1887, p. 27.

²² *ibid.*, November 28, 1887, p. 28.

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Section 8 Page 4 Green Bay Road Bridge, City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

Although only one lane in width, the Green Bay Road Bridge continued to endure heavy use for nearly seventy years. The Green Bay Road functioned as one of the primary routes into Manitowoc until 1956, when County Trunk Highway R was constructed, following closely along the Green Bay Road's route but avoiding many of the historic road's more remote sections. The section of the Green Bay Road leading to the bridge was bypassed due to its location in a slight, narrow alley hemmed in on both sides by hills; and this portion was renamed Mill Street, for a historic mill located nearby. The bridge, which then became commonly known as the Mill Street Bridge, has been predominately an auxiliary route since that time, used by residents of Mill Street and others wishing to bypass the county trunk's curve. It has continued to function in this capacity to the present, although is is expected to be closed and converted to pedestrian-only use in the near future.

III. Historical Context: Truss Bridges in Wisconsin

Truss bridges in general, and through-truss bridges in particular, were once ubiquitous on the Wisconsin landscape, but have been largely replaced in recent years by concrete span structures. Through truss bridges, in which the truss structure rises above and over the roadbed, were commonly used to span_longer expanses, while pony trusses (shorter trusses extending along either side of the roadbed and not connected across the top) were used predominately for shorter or lighter-use bridges. Prior to 1911, when state law mandated that all bridges must be built in accordance with standardized plans developed by the State Highway Commission, bridge details and specifications often varied from one company to the next, with results that ranged from excellent to poor. Bridges from this pre-1911 era are considered particularly significant, both for their rarity and the representation they provide of individual companies' adaptations and innovations while using the fundamental truss types. One of the most prolific bridge companies in Wisconsin, the Wisconsin Bridge and Iron Company was a regional leader of the pre-standardization industry; their known body of work includes the Green Bay Road Bridge. Like many such companies, however, the Wisconsin Bridge and Iron Company appears to have stopped building bridges in Wisconsin at approximately the time of the mandated standardization: there are no known extant bridges constructed by this company after 1908. ²⁴

The evolution of the iron truss bridge stemmed from a confluence of developments, including improvements in ironmaking processes, structural engineering advances, and increasing demand for better and more reliable roads and railways. As engineers had long since discovered, short structural members arranged in repeated triangular forms can be used to build a structure much longer than otherwise possible, and one that is as strong as its constituent parts, rather than being weakened by the joints (in a four-sided structure, joints are inherently the weakest part since they can rotate under a load and throw the structure out of balance). Triangular arrangements, or trusses, however, still require that some members be made subject to compressive loads, while others carry tension loads; as long as the material most commonly available for construction continued to be wood, applicability of trusses as structural members was limited, since wood is fundamentally weaker in tension than in compression. With the development of cast and wrought iron, however, bridge designers gained access to a material which has approximately the same strength in compression as in tension.²⁵ As a result, truss arrangements could be employed to make longer, safer spans. Since joint weakness is not a factor with

²⁴ Meyer, op cit., p. 12-8 to 12-19.

²⁵ The word "approximately" is used because the relative compressive and tensile strength of iron varies somewhat according to its impurities and the production methods used.

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triangle-based trusses, and since the various types of iron available have structural characteristics that are relatively consistent and well-understood, safe loads and designs could be determined for any given situation with relative ease.

By the late 1800s, two basic types of trusses had become the norm in Wisconsin, each with an assortment of variations. The Pratt truss, the type represented by the Green Bay Road Bridge, is recognizable by its heavier vertical members and lighter diagonals. reflecting the fact that the vertical members are designed to carry the compressive loads (the weight of the bridge and anything on it), while the diagonals carry the tensile loads (the pull of gravity against the bridge's anchors to its abutments). The Warren truss carries both compression and tension forces in its diagonals, which tend to be heavier. Following standardization in 1911, the Pratt truss became the only sanctioned choice for overhead trusses, while the Warren truss was only used on pony truss bridges. According to one published report, 123 Pratt through truss highway bridges and 497 Warren ponv truss highway bridges were know to exist in 1984.²⁶ Pratt through truss bridges appeared across the state between 1875 and 1911, with most of the earlier trusses constructed of wrought iron and most of the later trusses made of steel. Construction of joints between bridge structural members also changed over time, with pre-1911 bridges usually having pin-connected joints consisting of eyes and bolts, while later bridges employed riveted connections at the joints. As previously described, earlier bridges, including the Green Bay Road Bridge, have a characteristically lightweight appearance, resulting from the relatively narrow dimensions of the members, especially when compared to later steel trusses. Compression members in early Pratt trusses tend to be made of built-up sections made up of several parts, instead of one massive beam, as was common for later bridges; early truss's diagonals and sway bracing tend to consist of round or rectangular bars, which were also supplanted with more massive members as truss design evolved. Unlike later trusses, both verticals and diagonals are connected by pins. Clearly designed for nineteenth-century vehicles and loads, these early bridges nevertheless represented an engineering achievement which would have been unthinkable fifty years prior. Cities and villages, especially smaller ones like Manitowoc and Manitowoc Rapids, took considerable pride in their iron truss bridges, often displaying them prominently on postcards and other souvenirs. For these communities, iron truss bridges represented their sophistication, their prosperity and, for Midwest communities in particular, a realization of having emerged from the pioneer era and becoming participants in a regional economy, due to a great extent to the improvements in road conditions and rail provisions that highly visible truss bridges clearly represented.

The companies that provided these new symbols of modernity were themselves object lessons in nineteenth-century industrialism. Firms like the Wisconsin Bridge and Iron Company required considerable capital and invested operating capital, both for their physical plants and for maintaining sufficient inventory. Unlike pre-industrial bridge-building carpenters or joiners, who relied to a great extent on local resources, such as lumber, that they fashioned on-site, companies making iron truss bridges were based at large industrial plants usually located on the outskirts of a metropolitan area that could provide the company with sufficient skilled labor. After traveling representatives obtained a contract to build a bridge at a particular site, the plant would be required to fabricate the parts needed (some parts, such as certain fasteners, might be purchased from a supplier).

 ²⁶ Robert Newbery and W. Guy Meyer, "Ordinary Iron Highway Bridges" <u>Wisconsin Academy Review</u>, March 1984, p.
 36.

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Page 6 Green Bay Road Bridge. City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

The bridge parts being fabricated were to a great extent standardized -- faced with a given, relatively common situation in terms of length of span needed and other considerations, most companies built bridges that looked basically similar, sometimes with trademark decorative features. However, since the engineering considerations of each situation are necessarily unique, each bridge would require slightly different parts -- different dimensions of members, different caliber of fasteners, and so on. As a result, although commonly used parts might be stockpiled, each new bridge required a substantial amount of customized fabrication, work that necessitated a highly skilled labor force. After all the parts had been fabricated, the bridge would be assembled at the factory to ensure that all parts fit and functioned properly prior to shipping. Once the bridge had been approved, it was disassembled, the parts marked to facilitate reconstruction, and the entire bridge loaded onto rail cars or horse-drawn wagons, or both, for transport to the bridge site. Once at the location the bridge parts could be assembled by local, unskilled labor with simple tools, under the supervision of one or few company representatives; this method also had considerable advantages for the company, since it was not required to maintain or find additional skilled labor for the assembly and had to provide living expenses for only a few field representatives.

At approximately the same time as the mandated standardization of truss bridge types and specifications, the State Highway Commission began to encourage use of reinforced concrete and long, strong steel beams in bridge construction. These newly-available materials promised faster, stronger and more reliable bridge construction, and soon companies equipped to use these materials began to supplant the iron works in bridge construction. Many of the iron works subsequently closed, moved out of state or began to build other kinds of structures requiring the same basic equipment and procedures, such as mining structures and prefabricated farm buildings.

One of the state's leading bridge builders prior to 1911, the Wisconsin Bridge and Iron Company, was started by Friedrich and Reinhold Weinhagen in 1886, shortly after the completion of the former Broadway Bridge in Manitowoc. The Green Bay Road Bridge is one of the earliest known to carry the company's name plate. When incorporated in 1891, the company had a capitol stock of \$100,000, an office in Milwaukee and a plant in Wauwatosa, near Milwaukee, producing bridges under contract and other general ironwork. The location of the plant subsequently moved from Wauwatosa to the suburb of North Milwaukee, and later to Milwaukee, and by mid-century had expanded into a variety of other contractual iron and steel construction fields, including farm outbuildings, grandstands and a copper concentrating plant. The company finally closed in 1983.²⁷ The Wisconsin Bridge and Iron Company's bridge-building scope is demonstrated in a survey of historic bridges associated with the Wisconsin Highway system in 1981 (see below). In that survey fifteen of the 59 bridges identified as significant examples were attributed to the Wisconsin Bridge and Iron Company, more than three times the number attributed to any other firm; all of the identifications were made on the basis of bridge plates bearing the company's name.²⁸

IV. Statement of Significance: Architecture / Engineering

As stated previously, the Green Bay Road Bridge is of statewide significance under National Register Criterion C as an excellent and rare early wrought iron example of a Pratt through truss bridge in Wisconsin. It is also significant as a representative of the earliest stage of Pratt through truss bridge technology, as manifested in Wisconsin. The Green Bay

²⁷ Ross, *op.cit.*, p. 9.

²⁸ Meyer, op cit., p. 12-8 to 12-19.

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Road Bridge is one of the oldest remaining Pratt through truss bridges in the state; as a result of its era of construction, it incorporates materials and construction techniques that prepared the way for and were later supplanted by later materials and techniques. The bridge's significance, therefore, stems not only from its excellent representation of an important bridge type, but also from its embodiment of a crucial stage in the development of bridge-making as a science. Of the bridges of this type and era known to currently exist in Wisconsin, few are still extant; of those known to be extant, few stand on their original site, as does the Green Bay Road Bridge. For these reasons the Green Bay Road Bridge may be determined to be a resource eligible for the National Register under Criterion C.

Although Pratt through truss bridges were once commonly found on roadways in Wisconsin, few of any era remain today. A 1981 survey of historic bridges conducted by the Wisconsin Department of Transportation identified 123 extant Pratt through truss bridges on roads falling under DOT jurisdiction. Although exact numbers are not readily available, it is commonly understood that the majority of these have been demolished since that time.²⁹ According to the Division of Historic Preservation. State Historical Society of Wisconsin, only 18 of 37 bridges identified by the 1981 survey as dating from the pre-standardization, or pre-1911, period were still extant in 1993.³⁰ As a result, Pratt through truss bridges constructed at any point during the historic era that still maintain reasonable integrity are generally considered to be of at least local significance under National Register Criterion C, in recognition of the historically prominent place this bridge type once held on the Wisconsin landscape, and the scarcity of examples with acceptable integrity at the present. As previously detailed, the Green Bay Road bridge demonstrates excellent physical and situational integrity; it is also the only known Pratt through truss bridge remaining on a roadway in the Manitowoc area.

In addition, the Green Bay Road Bridge may be considered significant under National Register Criterion C as one of few remaining representatives of the earliest phase of development of the Pratt through truss bridge in Wisconsin. Due to its era of construction, the Green Bay Road bridge represents a set of technologies. construction methods and materials which helped foster the proliferation of iron through truss bridges (most of which were Pratt trusses or Pratt derivatives), and which were within a few years replaced by more recently-developed materials and methods. As described previously, Pratt through truss bridges in Wisconsin may be categorized chronologically and in terms of their technologies into several groups. The earliest bridges of this type, which generally predate 1895 and represent the first efforts at commercial truss bridge construction for roadways, are made of wrought iron and can be distinguished from later Pratt through truss bridges by structural members that appear visually to lack the massiveness commonly associated with more

²⁹Meyer, *op cit.*, p. 12-6. It should also be noted that, due to its reliance on DOT records, the 1981 Survey conducted under the auspices of the Historic Bridge Advisory Council (HBAC) was not and was not intended to be exhaustive. In general, bridges not under DOT jurisdiction were not surveyed. As a result, the Broadway Bridge mentioned in the text, which is less that one mile from the Green Bay Road Bridge, was not surveyed, although it stood until 1984. The HBAC conclusions are, however, the most exhaustive available, and are commonly used to determine a given bridge's context, with the understanding that others may have existed that were not recorded.

³⁰ Personal communication with Richard Bernstein, Compliance Section, Division of Historic Preservation of the State Historical Society of Wisconsin, March 17, 1997.

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Section 8 Page 8 Green Bay Road Bridge, City of Manitowoc/Town of Manitowoc Rapids, Manitowoc County, Wisconsin.

recent trusses. These earlier bridges have generally thin and lightweight-looking structural members, some of which may consist of rods less than an inch in diameter. Unlike bridges from the 1895-1910 period, which also often appear to be less massive than later examples, pre-1895 bridges were usually constructed of wrought iron, a material that fell from favor in the 1890s due to technological advantages that lead to stronger and less expensive steel for construction purposes. Bridges from this earlier period also have pin-connected joints, in which posts, diagonals and beams are tied together by large iron bolts set through holes in the receiving ends of the members. Later truss bridges, particularly after 1911, have joints connected by riveted plates, which had become easier to assemble on-site due to improvements in riveting technology. For Wisconsin bridges of the earliest period, those that predate 1895, only five were identified by the 1981 survey; due to their limited numbers all were determined at that time to be significant.³¹ Of these, only one in addition to the Green Bay Road Bridge is known to be extant; this one has been temporarily relocated and is awaiting a permanent location.³²

The Green Bay Road Bridge may therefore be considered eligible for the National Register under Criterion C as a result of two distinct but interrelated aspects of its construction and design. It is significant as an excellent early example of a historically prominent Wisconsin roadway feature, the Pratt through truss bridge: it is also significant for its representation of the first era of development of this historically significant bridge type in Wisconsin. In both respects the Green Bay Road bridge now has few counterparts in Wisconsin and thus is considered significant at the statewide level.

VI. Conclusion

The Green Bay Road Bridge is significant under National Register Criterion C as an excellent example of an increasingly rare truss bridge type and an early manifestation of that type. Pratt through truss bridges of all eras are increasingly rare, and such bridges dating from the earliest era of their construction on highways are particularly unique in Wisconsin. The Green Bay Road Bridge excellently represents both the Pratt through truss bridge in general and the initial phase of Pratt through truss bridge development in Wisconsin, and provides a valuable object lesson in the construction and engineering methods of its era.

VII. Archeological Potential

Although the area surrounding the Mill Street bridge has been occupied since the beginning of the Euro-American period in this area, at the least, there is little evidence to suggest strong archeological potential. The area immediately adjoining the bridge has been used for transport for over 150 years, and probably longer; however, there is no evidence of buildings or other physical settlements, which would be more likely to provide archeological resources, in the immediate vicinity of the bridge.

³¹ Meyer, op cit., 1986, 12-13.

³² Bernstein, op cit.

Name of Property

Manitowoc

County and State

_ Other State Agency X Federal Agency

_ Local government

_ University

X Other

Primary location of additional data:

X State Historic Preservation Office

Name of repository:

Manitowoc Co. Hist. Society

9. Major Bibliographic References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (National Park Service):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- _ previously determined eligible by
- the National Register designated a National Historic
- landmark
- _ recorded by Historic American Buildings Survey #_____
- _ recorded by Historic American Engineering Record #____

10. Geographical Data

Acreage of Property Less Than One Acre

UTM References (Place additional UTM references on a continuation sheet.)

1	1/6	4/4/3/8/4/0	4/8/8/2/5/6/0	3				
	Zone	Easting	Northing		Zone	Easting	Northing	
2				4				
	Zone	Easting	Northing		Zone	Easting	Northing	
					See Cor	ntinuation Sh	eet	

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By	

name/title	Della G. Rucker				
organization	Rucker Historical Research			date	3/21/97
street & number	PO Box 204			telephone	(414) 432-7044
city or town	Green Bay	state	Wisconsin	zip code	54305

Wisconsin

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Section 9 Page 1 Green Bay Road Bridge. City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

Major Bibliographical References:

- "Annual Bridge Inspection Report, Mill Road Bridge," State of Wisconsin, Department of Transportation, 1979. Copy located in collection of Manitowoc County Historical Society.
- Comp, T. Allan et al. "Bridge Truss Types: a Guide to Dating and Identifying." Number 95, <u>AASLH Technical Leaflet</u>, American Association for State and Local History (Nashville, TN: 1977).
- Falge, Louis, ed. <u>History of Manitowoc County, Wisconsin</u> (Manitowoc: Manitowoc County Genealogical, Society) 1911-12, reprint by MCGS 1976.
- Manitowoc County Board of Supervisors, Proceedings, 1885-1887.
- Meyer, Guy. "Transportation: Iron and Truss Bridges." Barbara Wyatt., ed., <u>Cultural Resources Management in</u> <u>Wisconsin, Vol. 2</u> (Madison: State Historical Society of Wisconsin) 1986.
- Newbery, Robert and Meyer, W. Guy "Ordinary Iron Highway Bridges." <u>Wisconsin Academy Review</u>, March 1984, p. 36.

Plat Book of Manitowoc and Calumet Counties (Chicago: Chas. M. Foote, Publisher), 1893.

Plumb, Ralph. A History of Manitowoc County (Manitowoc: Brandt Printing & Publishing Co.), 1904, p. 20

- Ross, Amy A. et. al. "Broadway Street Bridge Spanning the Manitowoc River at Broadway Street." (Madison: Wisconsin Department of Transportation) 1995.
- Personal communication with Richard Bernstein, Compliance Section, Division of Historic Preservation of the State Historical Society of Wisconsin, March 17, 1997.

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Section 10 Page 1 Green Bay Road Bridge. City of Manitowoc/Town of Manitowoc Rapids, Manitowoc County, Wisconsin.

Boundary Description:

The nominated property is defined as follows:

Commencing at the southerly corner of the base of the southerly stone abutment of the bridge at said abutment's juncture with the adjoining embankment; proceeding thence northwesterly along said abutment's juncture with the adjoining embankment to the northerly corner of the base of the southerly stone abutment of the bridge at said abutment's juncture with the adjoining embankment; proceeding thence in a straight line northeasterly. parallel to the northerly edge of the bridge's deck, in a northerly direction to the northerly corner of the base of northerly abutment at said abutment's juncture with the adjoining embankment; proceeding thence southeasterly along said abutment's juncture with the adjoining embankment; proceeding thence southeasterly along said abutment's juncture with the adjoining embankment; proceeding thence is a straight line northerly abutment at said abutment's juncture with the adjoining embankment; proceeding thence is a straight line southerly stone abutment's juncture with the adjoining embankment; proceeding thence in a straight line southwesterly, parallel to the southerly edge of the bridge's deck, in a southerly corner of the base of the northerly stone abutment of the bridge at said abutment's juncture with the adjoining embankment; proceeding thence in a straight line southwesterly, parallel to the southerly edge of the bridge's deck, in a southerly direction to the Point of Beginning.

Boundary Justification:

The above boundaries encompass the entire bridge structure, including abutments; they exclude the adjoining roadway and the private and public-lands which are not historically associated with the bridge's function.

Green Bay Road Bridge	Manitowoc	Wisconsin
Name of Property	County and State	

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

MapsA USGS map (7.5 or 15 minute series) indicating the property's location.A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Ow	vner				•
Complete this it	em at the request of SHPO or FPO.)			
name/title	see continuation sheet				
organization				date	
street&number	•			telephone	
city or town		state	Wisconsin	zip code	

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 20503.

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Section_Photos Page |_Green Bay Road Bridge, City of Manitowoc/Town of Manitowoc Rapids, Manitowoc County, Wisconsin.

Photo #1 of 8

GREEN BAY ROAD BRIDGE Town of Manitowoc Rapids / City of Manitowoc, Manitowoc County, WI Photo by D.G. Rucker, Nov. 25, 1996 Negative at State Historical Society of Wisconsin View looking southwest.

Photo #2 of 8

GREEN BAY ROAD BRIDGE Town of Manitowoc Rapids / City of Manitowoc, Manitowoc County, WI Photo by D.G. Rucker, Nov. 25, 1996 Negative at State Historical Society of Wisconsin View looking north.

Photo #3 of 8

GREEN BAY ROAD BRIDGE Town of Manitowoc Rapids / City of Manitowoc, Manitowoc County, WI Photo by D.G. Rucker, Nov. 25, 1996 Negative at State Historical Society of Wisconsin View looking northeast.

Photo #4 of 8

GREEN BAY ROAD BRIDGE Town of Manitowoc Rapids / City of Manitowoc, Manitowoc County, WI Photo by D.G. Rucker, Nov. 25, 1996 Negative at State Historical Society of Wisconsin View looking south.

Photo #5 of 8

GREEN BAY ROAD BRIDGE Town of Manitowoc Rapids / City of Manitowoc, Manitowoc County, WI Photo by D.G. Rucker, Nov. 25, 1996 Negative at State Historical Society of Wisconsin Detail, view looking northeast.

Photo #6 of 8

GREEN BAY ROAD BRIDGE Town of Manitowoc Rapids / City of Manitowoc, Manitowoc County, WI Photo by D.G. Rucker, Nov. 25, 1996 Negative at State Historical Society of Wisconsin Detail, deck substructure; view looking north.

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Section Photos Page 2 Green Bay Road Bridge, City of Manitowoc/Town of Manitowoc Rapids, Manitowoc County, Wisconsin.

Photo #7 of 8

GREEN BAY ROAD BRIDGE Town of Manitowoc Rapids / City of Manitowoc, Manitowoc County, WI Photo by D.G. Rucker, Nov. 25, 1996 Negative at State Historical Society of Wisconsin Detail, post and sway brace connection.

Photo #8 of 8

GREEN BAY ROAD BRIDGE Town of Manitowoc Rapids / City of Manitowoc, Manitowoc County, WI Photo by D.G. Rucker, Nov. 25, 1996 Negative at State Historical Society of Wisconsin Detail, southerly abutment.

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Section_Property_owner_ Page_1_Green Bay Road Bridge. City of Manitowoc/Town of Manitowoc Rapids. Manitowoc County, Wisconsin.

The bridge is located on the border between the City of Manitowoc and the Town of Manitowoc Rapids, and as such is jointly owned by the two entities. Their addresses and telephone numbers are as follows:

<u>City of Manitowoc</u> 817 Franklin St. Manitowoc, WI 54220 (414)683-4450

Town of Manitowoc Rapids 8824 CTH JJ Manitowoc, WI 54220 (414) 682-3300