Local Historic Bridge Study, Phase II
MnDOT Federal Project No.: SPR CR13(001): BR 8813 (114)
March 2013 – January 2015

The following is a copy of the National Register of Historic Places (National Register) Nomination as submitted to the bridge owner in early 2015. The National Register Nomination may have been modified by the bridge owner prior to its final submission to the Minnesota State Historic Preservation Office.

Please check with the Minnesota State Historic Preservation Office for the bridge's National Register status and/or an updated National Register Nomination prior to citing or using this document for report purposes.

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any 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.

1. Name of Property

Historic name: Northern Pacific (NP) Bridge No. 9

Other names/site number: Bridge No. 99162, now Bridge No. 94246

Name of related multiple listing:
"Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"

(Enter "N/A" if property is not part of a multiple property listing)

2. Location

Street & number: Over Mississippi River, between 20th Avenue South and East River Road

City or town: Minneapolis State: MN County: Hennepin

Not for publication: N/A Vicinity: N/A

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this ___ 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 ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national ___ statewide ___ local

Applicable National Register Criteria:

___ A ___ B ___ C ___ D

Signature of certifying official/Title	Date
State or Federal agency/bureau or Tribal Government	

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official	Date
Title:	State or Federal agency/bureau or Tribal Government

Northern Pacific Railway Bridge No. 9 | Hennepin, Minnesota
Name of Property | County and State

4. National Park Certification

I, hereby, certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

_____ _____
Signature of the Keeper Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply)

Private	☐
Public - Local	X
Public - State	☐
Public - Federal	☐

Category of Property
(Check only **one** box)

Building(s)	☐
District	☐
Site	☐
Structure	X

Northern Pacific Railway Bridge No. 9 | Hennepin, Minnesota
Name of Property | County and State

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		sites
1		structures
		objects
1		Total

Number of contributing resources previously listed in the National Register N/A

6. Function or Use

Historic Functions
(Enter categories from instructions.)
TRANSPORTATION/rail-related

Current Functions
(Enter categories from instructions.)
TRANSPORTATION/pedestrian-related

7. Description

Architectural Classification
(Enter categories from instructions)

OTHER: Pratt deck truss
OTHER: Deck plate girder

Materials: (Enter categories from instructions.)

Principal exterior materials of the property: METAL: Steel
CONCRETE

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

Constructed in 1922-1924, the Northern Pacific Railway (NP) Bridge No. 9 is a seven-span structure with two 245-foot long Pratt deck truss main spans that were fabricated in 1886, and five deck plate girder approach spans. Located in Minneapolis, Hennepin County, Minnesota, the bridge historically carried the NP St. Paul Division, 13th Subdivision, "A" Line over the Mississippi River. The bridge now carries the Dinkytown Greenway, a bicycle/pedestrian path over the river from 20th Avenue South on the west bank to East River Road on the east bank. Character-defining features include the two pin and eyebar connected, Pratt deck truss main spans, each with eight 30-foot panels that were constructed in 1886; and a riveted middle reinforcing truss that was added in 1924.

Narrative Description

NP Bridge No. 9, also known by its Minnesota Department of Transportation (MnDOT) Inventory Number, first as Bridge No. 99162 and now Bridge No. 94246, is located in southeast Minneapolis, Hennepin County, Minnesota and spans the Mississippi River. The bridge is in an urban, metropolitan area with downtown Minneapolis to the west of the bridge and the University of Minnesota to the east. The bridge has a northeast-southwest alignment and crosses the Mississippi River at a right angle; the southern approach spans (Spans No. 5, 6, and 7) use an eight degree curve to achieve this alignment. The bridge has an overall structure length of 952 feet and an out-and-out width of 28 feet.

The substructure is comprised of two abutments and six piers, all of reinforced-concrete construction. They are numbered one through eight consecutively from northeast to southwest. Abutment No. 1 is a "U" type concrete abutment that rests on a limestone foundation. Piers No. 2, 6, and 7 are reinforced concrete columns with mass concrete footings placed atop the sandstone bedrock. Piers No. 3, 4, and 5 consist of mass concrete columns and footings also resting atop the sandstone bedrock. Pier 4 was repaired in 2012 by placing a reinforced concrete shell around the shaft and cap of the existing pier.[1] Abutment No. 8 is a six-post, reinforced concrete tower buried by the embankment. This abutment rests partially on sandstone bedrock.

The superstructure of the bridge is comprised of seven spans numbered one through seven consecutively from northeast to southwest. The two Pratt deck truss main spans (Spans 3 and 4) are from the original Bridge No. 9 which was constructed in 1886 and are of wrought iron construction, while Span Nos. 1, 2, 5, 6, and 7 were fabricated in 1924 and are deck plate girder approach spans of riveted steel construction. Span No. 1 has four lines of deck plate girders, is 87 feet long, and is on an eight degree curve. Span No. 2 has four lines of deck plate girders and is 84 feet long. Spans No. 3 and 4 are both eight-panel, steel Pratt deck trusses that are each 249 feet in length. Each span is comprised of three parallel trusses. The outer trusses, floor beams, and stringers are from the original NP Bridge No. 9. The trusses are 24 feet apart, are 245 feet long, and are comprised of 30-foot panel lengths. The outside trusses are pin and eyebar connected, with steel rocker bents supporting the ends of the girder spans adjacent to the truss spans. The steel middle trusses in each span were added in 1924 to reinforce the original 1886 structure, and have riveted connections.[2] Each of the two main spans features four circa 1999 navigation lights. Span Nos. 5, 6, and 7 each have four lines of deck plate girders and are on an eight degree curve. Span No. 5 is 95 feet long, Span No. 6 is 94 feet long, and Span No. 7 is 94 feet long.

In 1999, the railroad tracks were removed and the bridge was converted for pedestrian use. A new 28-foot wide cast-in-place, reinforced-concrete deck was laid and paved with an asphalt wearing surface on the approach spans and concrete on the trusses. Painted steel railings that extend the length of the bridge were added to the deck, along with lighting. Constructed of square tube steel, the railings have square posts and ornamental railing panels. The panels have bi-rail top and bottom rails and vertical pickets. Ornamental metal lights comprised of slender standards with a gooseneck and panhead fixture are staggered along each side of the bridge, 12 on the west side, and 14 on the east. Two concrete endposts are located at each end of the bridge. The western endpost on the northeast end of the bridge features a bridge plate that reads "City of Minneapolis Minnesota BR 94246 Built 1922 Remodeled 1999." A freestanding sheet-metal marker that describes the history of the bridge was also added to the north end of the bridge in 1999.

Integrity

The NP Bridge No. 9 is constructed with two wrought iron trusses from the original NP Bridge No. 9 that was built in 1886 and was located 1,000 feet downriver. The 1886 trusses were refurbished and reinforced with a new intermediary truss that was added in 1924; the reinforcement slightly affects the integrity of the original design and workmanship of the 1886 structure at its connection points. However, the 1886 pin and eyebar, deck truss design, and the 30-foot panel lengths remain intact and unaltered. Therefore, the 1886 trusses retain sufficient integrity of design, materials, and workmanship to convey their engineering significance from 1886. As integrated with the 1924 bridge, the 1886 trusses retain an orientation, setting, and general environment that is comparable to their original location. As such, the trusses continue to express the design intent and historic sense of the bridge's 1886 period of significance.

[1] Bridge No. 9 Pier 3 Proposed Repairs Letter, from Kristen Zschomler, MnDOT to Kelly Gragg-Johnson, SHPO, September 9, 2013.
[2] "Mississippi River Br. #9, I.C.C. account No. 6, Bridges, Trestles, and Culverts," Northern Pacific Railway Company Engineering Department, 1925, on file at the Minnesota Historical Society, St. Paul, Minnesota, 124.

Since its reconstruction in 1924, NP Bridge No. 9 has spanned the Mississippi River in the same location, within the urban setting of Minneapolis. As such it retains integrity of location and setting. In 1999, the railroad tracks were removed; a new deck, railings, and lights were added; and in 2012 Pier No. 4 was repaired. These changes do not affect the integrity of the design, materials, and workmanship of the Pratt deck truss main spans, which is the primary engineering feature from which the bridge derives its engineering significance. The changes have not noticeably altered any character-defining features of the 1924 substructure or superstructure that would impact its ability to convey its significance under Criterion A. Therefore, the bridge retains good integrity of design, materials, and workmanship. As such, the bridge retains good integrity of association and feeling, and continues to convey its significance as a 1924 structure.

8. Statement of Significance

Applicable National Register Criteria

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

[X] 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.

[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)

[ ] 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 old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)
ENGINEERING
COMMUNITY PLANNING AND
DEVELOPMENT

Period of Significance
1886
1924

Significant Dates
1886
1924

Significant Person
(Complete only if Criterion B is marked above)
N/A

Cultural Affiliation
N/A

Architect/Builder
Northern Pacific Railway

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

NP Bridge No. 9 is eligible for the National Register of Historic Places (NRHP) under Criterion A in the area of Community Planning and Development. Constructed as part of the NP University Line Change project, NP Bridge No. 9 is representative of the large-scale railroad grade separation projects that were constructed in Minneapolis throughout the 1920s, to provide greater safety for pedestrian and vehicular traffic at railroad crossings. [3] Its period of significance for this criterion is 1922-1924.

The "Railroads of Minnesota Multiple Property Documentation Form" (MPDF) states that railroad bridges can be eligible for the NRHP under Criterion C, in the area of engineering, provided they meet certain registration requirements. Registration Requirement 17 of the "Railroads of Minnesota MPDF" states bridges can be eligible if they "employed experimental or innovative elaborations of contemporary engineering practice to meet unusual or extreme site conditions."[4] The reinforcement and reuse of the two 1885 deck truss spans of the original NP Bridge No. 9 for the 1922 bridge is an outstanding example of an innovative elaboration of contemporary engineering practice to meet an unusual condition; allow the reuse of an existing, outdated structure that lacked the structural capacity to meet the current needs of the day. Thus, NP Bridge No. 9 is eligible for the NRHP under Criterion C, in the area of Engineering, within the "Railroads of Minnesota MPDF."

Additionally, within the "Iron and Steel Bridges in Minnesota MPDF," the bridge satisfies Registration Requirements 9 and 12. Registration Requirement 9 states a bridge is eligible for the NRHP under Criterion C if it is a deck truss bridge, as "such bridges are very rare and represent a design solution to an unusual site condition."[5] Registration Requirement 12 states a bridge can be eligible if it is "a bridge which exhibits exceptional engineering skill to meet unusual site conditions."[6] The NP Bridge No. 9 is a deck truss bridge that has significance for the design of its original 1886 structure and the innovation of its reengineering as completed in 1924. As such, NP Bridge No. 9 is eligible for the NRHP under Criterion C, in the area of Engineering, within the "Iron and Steel Bridge in Minnesota MPDF."

NP Bridge No. 9 is also eligible for the NRHP under Criterion C in the area of Engineering, within the historical context "Iron and Steel Bridges in Minnesota, 1873-1945." The bridge is significant under Criterion C for its unique application of engineering and design methods. The bridge's two pin and eyebar connected deck trusses were constructed in 1886 with 30-foot panel lengths; these panel lengths were believed to be longer than any

[3] In a letter from Britta Bloomberg, Minnesota SHPO, to Joseph Hudak, MnDOT dated November 1, 1994, the Minnesota SHPO concurred with the recommendation made by MnDOT that Bridge 99162 (now known as Bridge 94246) is eligible for the NRHP under Criteria A and C. According to the 1994 report *Evaluation of Bridges 99162 and 99163 as Potential Historic Structures in Minneapolis, Hennepin County*, Minnesota by Woodward-Clyde Consultants, and on file at the Minnesota SHPO office in St. Paul, Minnesota, under NRHP Criterion A, the bridge was recommended as eligible for its association with events that contributed to the broad patterns of history in the development of the city of Minneapolis, as moving the rail line was part of a ten year program by the Northern Pacific to separate grade crossings throughout the city.

[4] Andrew J. Schmidt, Daniel R. Pratt, Andrea C. Vermeer, and Betsy H. Bradley. "Railroads in Minnesota, 1862-1956," 2007, National Register of Historic Places Multiple Property Documentation Form, F225

[5] Fredric L. Quivik and Dale L. Martin. "Iron and Steel Bridges in Minnesota," July 1988, National Register of Historic Places Multiple Property Documentation Form, F-10.
F-9-10

[6] Ibid.

truss previously built in the United States. Additionally, increasing the load carrying capacity of the 1886 trusses through the addition of the 1924 reinforcing truss represents an innovative application of then-contemporary engineering methods. Its periods of significance under NRHP Criterion C are 1886 and 1924.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

In 1885, the NP acquired right-of-way (ROW) to construct a spur line from its mainline on the east side of the Mississippi River to serve the burgeoning Minneapolis milling district located on the west bank of the river. Known as the NP's St. Paul Division, 13th Subdivision, "A" Line, the spur left the mainline at St. Anthony Junction on the east side of the river and extended around the south side of the University of Minnesota (University) campus, roughly two blocks north of Washington Avenue, and just south of what was then Arlington Street. [7] The line, which included a new deck truss bridge over the Mississippi River, was completed and put into service on June 1, 1886.[8]

The bridge the railroad constructed over the Mississippi River as part of the "A" Line, NP Bridge No. 9, was a 995-foot long structure with a double-track deck. The bridge was comprised of two, 245-foot long Pratt deck truss spans on the east end, and to the west, a 750-foot viaduct comprised of alternating 30- and 60-foot deck truss spans. The 30-foot spans were trussed tower spans supporting structural members beneath the deck, while the 60-foot spans were Kingpost comprised of two 30-foot panels. The two main deck truss spans were single intersection Pratt deck trusses, each divided into eight panels. A 1903 article in the *Journal of the Western Society of Engineers* states that the 30-foot panel lengths in the main spans were believed to be greater in length than any truss previously built in the United States.[9] During this period panel lengths of Pratt trusses typically ranged from 15 to 20 feet.

In the late nineteenth century, the University began to expand southward toward Washington Avenue and in the early twentieth century, it started to procure and develop property to the south of the NP tracks, which resulted in the NP line running directly through the campus. Crossing the line was an inconvenience for students who had to wait for trains. The intersection of University Avenue and Oak Street, which was where the line left campus to the east, became an increasingly busy at-grade crossing where trains, streetcars, pedestrians, and other modes of transportation met, causing congestion and raising safety concerns.[10] By 1904, the City of Minneapolis was calling for a grade separation at this intersection. The Chicago, Milwaukee, St. Paul & Pacific Railroad (CMStP&P) also had an at-grade crossing nearby, at University and Washington Avenues, so if a grade separation was to be constructed for the NP line, the CMStP&P would also need to create a grade-separated crossing at this intersection. Since the CMStP&P would not agree to construct a grade separation for its line, the NP line remained unchanged.

[7] "1955 Northern Pacific Railway Pocket Bridge List," Northern Pacific Railway Company, accessed August 1, 2013, http://research.nprha.org/Tacoma%20Division%20Bridge%20Book/Forms/DispForm.aspx?ID=44&RootFolder=/Tacoma Division Bridge Book; Sanborn Map Company, *1912 Insurance Map of Minneapolis, Minnesota*, (New York: Sanborn Map Company, 1912); C.M. Foote & Company, "1892 City of Minneapolis, Plate 37," accessed July 22, 2013, http://geo.lib.umn.edu/plat_books/minneapolis1892/reference/map01372.jpg.; James Egan, *1903 Atlas of the City of Minneapolis, Plate 33*, accessed August 1, 2013, http://geo.lib.umn.edu/plat_books/minneapolis1903/reference/map00153.jpg.

[8] "University Line Change: Report of the Chief Engineer," Northern Pacific Railway Company Engineering Department, 1925, on file at the Minnesota Historical Society, St. Paul, Minnesota, 1.

[9] F. B. Maltby, "The Mississippi River Bridges," *Journal of the Western Society of Engineers*, (1903): 426.

[10] "University Line Change: Report of the Chief Engineer,"1.

In 1908, the University Board of Regents called a meeting with the Minneapolis City Council and NP officials to discuss changes to the NP's line. At this time the Board of Regents suggested rerouting the NP line entirely around the north edge of campus, crossing the Mississippi River on a new bridge, and reconnecting with existing track on the west side of the river. NP officials viewed this option as complicated and costly and, therefore, opposed it.[11] The Minneapolis City Council took no further action on the matter, so the Board of Regents brought the issue before the Minnesota Legislature.[12] In 1909, the Legislature passed S.F. No. 134 – "An Act to require the Northern Pacific Railway Company to cover its tracks through the campus of the University of Minnesota," which mandated that the NP, at its own expense, cover its tracks through the campus of the University and make any grade changes as needed. It is unclear if the tracks were to be removed, simply paved over, or placed in a trench (grade separation) and "covered." The responsibility of enforcing the act was placed on the Board of Regents.[13]

For several years, lack of enforcement of the law by the University Board of Regents, disagreements with the City of Minneapolis over grade separations, and the subsequent refusal of the NP to comply once an agreement had been reached, stalled any action on relocation of the line. The issue was not taken up again until 1918, when Frederick William Cappelen, City Engineer for the City of Minneapolis, proposed revisiting the idea of removing the tracks from campus and constructing a new line to the north of the campus.[14] The Board of Regents endorsed Cappelen's plan, going so far as to propose that the University would pay the excess costs associated with a realignment that exceeded the estimated cost of improving the existing line. The NP considered this offer, and during 1920, worked out several alternative alignments to reroute the line. On January 21, 1921, a meeting was held between University representatives, Cappelen, and the NP, during which an agreement for a new alignment was finally reached.[15] The Board of Regents then requested that the Minnesota Legislature approve a bill authorizing the University to enter into an agreement with the NP to relocate the line and provide an appropriation for its share of the cost. The act was passed in April 1921. Throughout 1921, the University secured the necessary ROW for the NP to relocate the line, and the final agreement between the two parties was executed on February 23, 1922. Construction on the new line, including the new NP Bridge No. 9 over the Mississippi River, began on May 23, 1922.[16] The new double track route, known as the University Line Change, was completed on December 2, 1924. Regular operation of trains over this new line, which ran north of the University and over the new Bridge No. 9, began on February 14, 1925.[17]

While the University Board of Regents led the charge to create a grade separation for the NP's "A" Line, the moving of this line is reflective of a larger planning effort to construct grade separations at busy and hazardous at-grade crossings in Minneapolis. These efforts, which formally began in the late 1880s and continued into the early 1930s, were led by the City of Minneapolis. In order to address the safety and transportation needs of its increasing population base, the Minneapolis City Council passed a number of ordinances calling for grade separations at specific places within the city, and on specific lines that passed through Minneapolis. In 1885, the Minneapolis City Council approved an ordinance requiring the St. Paul, Minneapolis & Manitoba Railway

[11] Ibid., 2.
[12] Ibid., 3.
[13] "1909 Laws of Minnesota, Chapter 302," Minnesota State Legislature, accessed July 25, 2013, https://www.revisor.mn.gov/data/revisor/law/1909/0/1909-302.pdf.
[14] "University Line Change: Report of the Chief Engineer," 3-4.
[15] Ibid., 4-5.
[16] "University Line Change: Report of the Chief Engineer," 6-7.
[17] "University Line Change: Report of the Chief Engineer," 6-7; "University Line Change Track Plans" Northern Pacific Railway Company Engineering Department, 1925, on file at the Minnesota Historical Society, St. Paul, Minnesota.

(later the Great Northern Railway [GN]) and Minneapolis & St. Louis Railway to construct a large-scale grade separation project through the city's rapidly growing warehouse district. Initially, the railroads resisted; however, after the Minnesota Supreme Court upheld the ordinance in 1888, the railroads were required to construct the grade separation. Throughout the late nineteenth and early twentieth century's, the Minneapolis City Council continued to enact ordinances requiring railroads to construct grade separations, as it did when it required the CMStP&P to construct grade separations in 1912-1916 for its line in south Minneapolis. In 1922, the NP began a concerted effort to separate grade crossings of its tracks in Minneapolis; the University Line Change of the "A" Line was the first of these projects.[18] The NP also elevated its "B" Line during this time period as a result of an ordinance enacted by the Minneapolis City Council.[19] The multiple grade separation projects that were constructed throughout Minneapolis during this period reflect a shift of power in urban centers, whereby the cities began to gain an upper hand and railroad companies were required to meet the demands of city planners in the name of public safety. Thus, the "A" Line relocation project represents the large grade separation projects that were constructed throughout Minneapolis, and the bridge itself is a manifestation of these projects as it embodies the effort to improve safety and traffic flow throughout the city.

The decision to relocate the "A" Line around the University meant that a new bridge was required to cross the Mississippi River. The NP determined that a new Bridge No. 9 would be placed at milepost (MP) 10, Station 518+85.9 to 528+37.5, approximately 1,000 feet upstream from the original NP Bridge No. 9, and it would be composed of seven double-track spans. However, instead of constructing an entirely new structure, the NP opted to reuse the two Pratt, pin-connected trusses from the original 1886 NP Bridge No. 9 as the main spans for the new crossing. An inherent design feature of truss bridges is their mobility and reusing existing trusses was a common practice. Trusses are simply an arrangement of metal pieces and removable pins or rivets that allowed builders to fairly easily disassemble and relocate truss spans to new locations.[20] Due to wear and corrosion, the two spans were sent to the Minneapolis Steel and Machinery Company for remodeling and reboring of the pin holes before they were installed in their new location.[21] When the 1886 truss spans were moved to their new location, they were reinforced with new riveted trusses that were installed longitudinally along the centerlines of the 1886 trusses. As reinforced, the trusses had a significantly greater carrying capacity; the original trusses were designed for a live load of 4,000 pounds per foot on each track, while the reinforced spans could carry up to two 155.5-ton locomotives followed by 5,000 pounds per foot on each track.[22] The reinforcement of existing trusses to increase capacity was not entirely without precedent; a contemporary span, the Washington Avenue Bridge, which spanned the Mississippi just south of the NP Bridge No. 9 from 1884-1965, was another Pratt deck truss that was reinforced with a center truss in 1890 to meet new load capacity requirements.[23] The NP Bridge No. 9 however, is a rare surviving example of an early reinforced bridge and demonstrates the innovative and significant engineering solution that the NP employed to reuse an existing structure that otherwise lacked the structural capacity to meet current railroad needs.

[18] Marcia Ohlhausen, "Evaluation of Bridges 99162 and 99163 as Potential Historic Structures in Minneapolis, Hennepin County, Minnesota (Final Report)," *Woodward-Clyde Consultants*, (1994), 3-8.
[19] "Grade Separation: Johnson Street at Line "B" and Pocket Yard Line," Northern Pacific Railway Company, no date, on file at the Minnesota Historical Society, St. Paul, Minnesota.
[20] "Wooden and Metal Truss Bridges," Tennessee Department of Transportation, accessed April 30, 2014, http://www.tdot.state.tn.us/environment/historic/book/chapter5.pdf.
[21] "Mississippi River Br. #9, I.C.C. account No. 6, Bridges, Trestles, and Culverts," 156.; "University Line Change: Report of the Assistant Engineer," Northern Pacific Railway Company Engineering Department,1925, on file at the Minnesota Historical Society, St. Paul, Minnesota, 23.
[22] "University Line Change: Report of the Assistant Engineer," 22.
[23] Maltby, "The Mississippi River Bridges," 427.

Though the main spans from the 1886 bridge were reused for the new bridge, the NP constructed new plate girder approaches.[24] All of the new steel for the new bridge, including the reinforcement trusses, girder spans, and rocker bents, was fabricated by the American Bridge Company. The new NP Bridge No. 9 was constructed by the Frankman Company.[25] The erection of the truss spans began on August 17, 1923. The assembling of the main members of the west span was completed October 6, 1923 and the east span December 1, 1923. Riveting of the reinforcement truss spans was started on October 15th and completed on December 22, 1923.[26] Painting of the superstructure, which was done by A. Gerske of Chicago, began on May 20, 1924 and was completed on June 15, 1924.[27]

As operations on the "A" Line diminished in the second half of the twentieth century, one set of track was removed, although the exact date is not known, and by 1981, the Burlington Northern Railroad (BN), the successor of the NP, had ceased operations over NP Bridge No. 9.[28] At that time, BN proposed transferring ownership of the bridge to the City of Minneapolis. The City explored several potential uses for the bridge, including vehicular and pedestrian, pedestrian and bikeway, pedestrian and light rail transit (LRT) options, but ultimately determined not to purchase the bridge. In 1986, the City of Minneapolis was working with General Mills to provide access to the company's elevators along the Mississippi riverfront from the south, via the NP line, rather than from the north via the GN. This would have required reactivation of Bridge No. 9.[29] While this plan never came to fruition, the City of Minneapolis did end up purchasing the bridge from BN in 1987.[30] The bridge remained closed until 1999, when the City rehabilitated the structure for use as a pedestrian bridge as part of the Dinkytown Greenway.[31]

Today, NP Bridge No. 9 stands as an example of the NP's efforts to grade separate their railroad crossings, and is a reminder of the railroad's prominence in the development of Minneapolis. The University Line change project was part of a 10 year project in which the NP created grade separations on their lines throughout Minneapolis to enhance the safety of pedestrians and vehicles at railroad crossings. In addition, the design of the bridge's original 1886 structure and the innovation of its reengineering as completed in 1924 are significant as intact, outstanding examples of innovative engineering practices as applied to a metal truss bridge.

[24] "Mississippi River Br. #9, I.C.C. account No. 6, Bridges, Trestles, and Culverts," 124.
[25] "University Line Change: Report of the Assistant Engineer," 24.
[26] Ibid., 25.
[27] Ibid., 26.
[28] A. M. Shirole, PE, *Burlington Northern Railroad's Bridge No. 9 Over Mississippi*, (Minneapolis: City of Minneapolis Public Works, 1981).
[29] Letter from Kathy O'Brien, Council Member, Ward 2 to Cedar Riverside Pac, West Band CDC, Perry Smith, August 8, 1986
[30] Letter from Wayne J. Parsons, PE to Roger Wiebush, Bridge Administrator, Coast Guard, personal communication, 1988
[31] "MnDOT Bridge Inspection Report Bridge 94246," Minnesota Department of Transportation, 2012, on file at the Minnesota Department of Transportation, St. Paul, Minnesota; Steve Brandt, "New crossing helps bikes, pedestrians reach "U," downtown," *Minneapolis Star Tribune*, June 7 2000, 2B.

9. Major Bibliographical References

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———. "University Line Change: Report of the Chief Engineer." 1925. On file at the Minnesota Historical Society, St. Paul, Minnesota.

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Ohlhausen, Marcia. "Evaluation of Bridges 99162 and 99163 as Potential Historic Structures in Minneapolis, Hennepin County, Minnesota (Final Report)." *Woodward-Clyde Consultants*. 1994. On file at the Minnesota State Historic Preservation Office, St. Paul, Minnesota.

Quivik, Fredric L., and Dale L. Martin. "Iron and Steel Bridges in Minnesota." July 1988. National Register of Historic Places Multiple Property Documentation Form. On file at the Minnesota State Historic Preservation Office, Minnesota Historical Society, St. Paul, Minnesota.

Sanborn Map Company. *1912 Insurance Map of Minneapolis, Minnesota*. New York: Sanborn Map Company, 1912.

Schmidt, Andrew J., Daniel R. Pratt, Andrea C. Vermeer, and Betsy H. Bradley. "Railroads in Minnesota, 1862-1956." 2007. National Register of Historic Places Multiple Property Documentation Form. On file at the Minnesota State Historic Preservation Office, Minnesota Historical Society, St. Paul, Minnesota.

Shirole, A. M. PE. *Burlington Northern Railroad's Bridge No. 9 Over Mississippi*. Minneapolis: City of Minneapolis Public Works, 1981.

Tennessee Department of Transportation. "Wooden and Metal Truss Bridges." Accessed April 30, 2014. http://www.tdot.state.tn.us/environment/historic/book/chapter5.pdf.

Previous documentation on file (NPS):

_____ 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 # _____
_____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

X State Historic Preservation Office
_____ Other State agency
_____ Federal agency
_____ Local government
_____ University
X Other
_____ Name of repository: City of Minneapolis

Historic Resources Survey Number (if assigned): HE-MPC-9006

10. Geographical Data

Acreage of Property 0.62

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates
Datum if other than WGS84:_____
(enter coordinates to 6 decimal places)

1. Latitude: Longitude:

2. Latitude: Longitude:

3. Latitude: Longitude:

4. Latitude: Longitude:

Or
UTM References
Datum (indicated on USGS map):

[ ] NAD 1927 or [X] NAD 1983

1. Zone: 15N	Easting: 480992.4	Northing: 4980524.6
2. Zone:	Easting:	Northing:
3. Zone:	Easting:	Northing:
4. Zone:	Easting:	Northing:

Verbal Boundary Description (describe the boundaries of the property)
The curvilinear boundary follows the center point of the bridge and is 952.0 feet long, is 28.5 feet wide at the end points, and widens between the two main spans to encompass the pier and breakwater. The boundary encompasses the edges of the bridge's abutments and the perimeter encompasses the entire bridge.

Boundary Justification (explain why the boundaries were selected)
The boundary encompasses the total bridge superstructure, total substructure, wingwalls, and all other integral abutment and approach elements.

11. Form Prepared By

name/title: Kelli Andre Kellerhals, Historian, and Gregory R. Mathis, Sr. Preservation Planner

organization: The 106 Group Ltd.

street & number: 370 Selby Ave.

city or town: St. Paul State: MN zip code: 55102

email: kandrekellerhals@106group.com

telephone: (651) 290-0977

date: May 2, 2014

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO or FPO for any additional items.)

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Northern Pacific Railway Bridge No. 9

City or Vicinity: Minneapolis

County: Hennepin State: MN

Photographer: Katherine Haun, Mead & Hunt

Date Photographed: June 12, 2013

Description of Photograph(s) and number, include description of view indicating direction of camera:

Photo 1 of 13
MN_HennepinCounty_NPBridgeNo.9_0001
Bridge No. 94246, elevation. Facing West.

Photo 2 of 13
MN_HennepinCounty_ NPBridgeNo.9_0002
Bridge No. 94246, elevation. Facing East.

Photo 3 of 13
MN_HennepinCounty_ NPBridgeNo.9_0003
Bridge No. 94246, elevation. Facing Northeast.

Photo 4 of 13
MN_HennepinCounty_ NPBridgeNo.9_0004
Bridge No. 94246, approach span elevation. Facing East.

Photo 5 of 13
MN_HennepinCounty_ NPBridgeNo.9_0005
Bridge No. 94246, approach span elevation. Facing West.

Photo 6 of 13
MN_HennepinCounty_ NPBridgeNo.9_0006
Bridge No. 94246, deck. Facing Southwest.

Photo 7 of 13
MN_HennepinCounty_ NPBridgeNo.9_0007
Bridge No. 94246, deck. Facing Northeast.

Photo 8 of 13
MN_HennepinCounty_ NPBridgeNo.9_0008
Bridge No. 94246, Pratt truss. Facing Northeast.

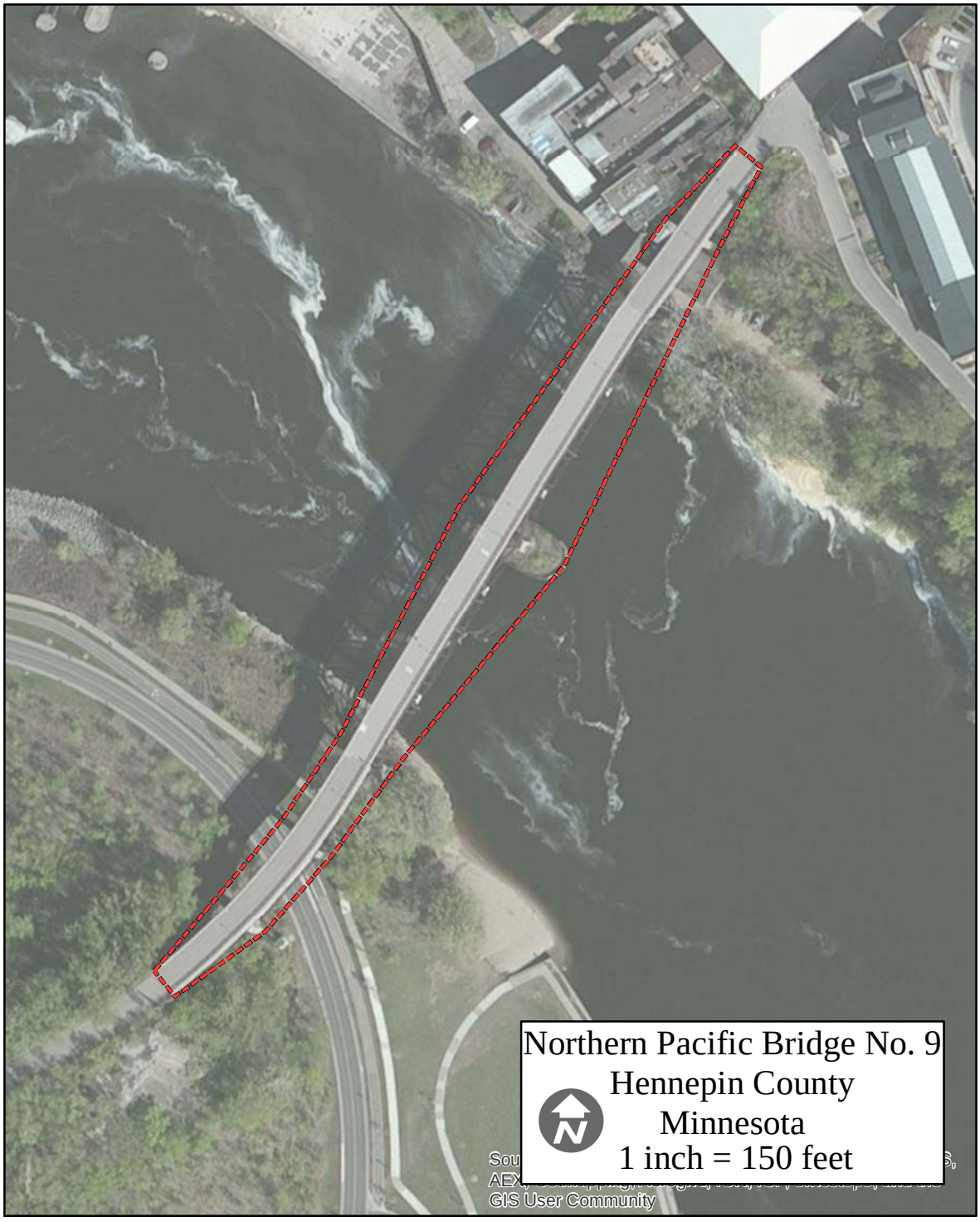
Photo 9 of 13
MN_HennepinCounty_ NPBridgeNo.9_0009
Bridge No. 94246, Main span and pier. Facing Northeast.

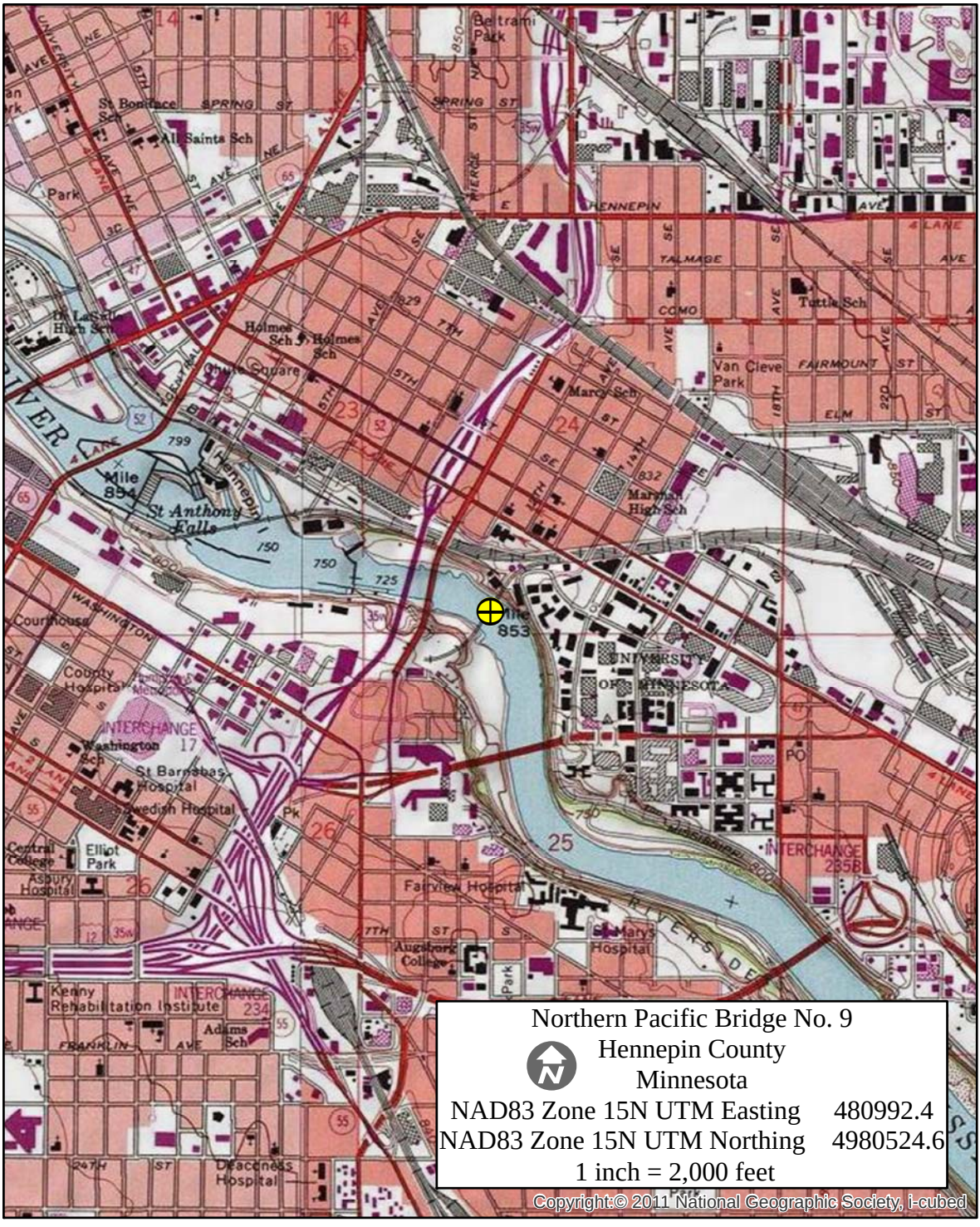
Photo 10 of 13
MN_HennepinCounty_ NPBridgeNo.9_0010
Bridge No. 94246, Pratt truss detail. Facing Northeast.

Photo 11 of 13
MN_HennepinCounty_ NPBridgeNo.9_0011
Bridge No. 94246, Plate girder. Facing East.

Photo 12 of 13
MN_HennepinCounty_ NPBridgeNo.9_0012
Bridge No. 94246, Approach pier. Facing East.

Photo 13 of 13
MN_HennepinCounty_ NPBridgeNo.9_0013
Bridge No. 94246, Bridge plate. Facing Southwest.

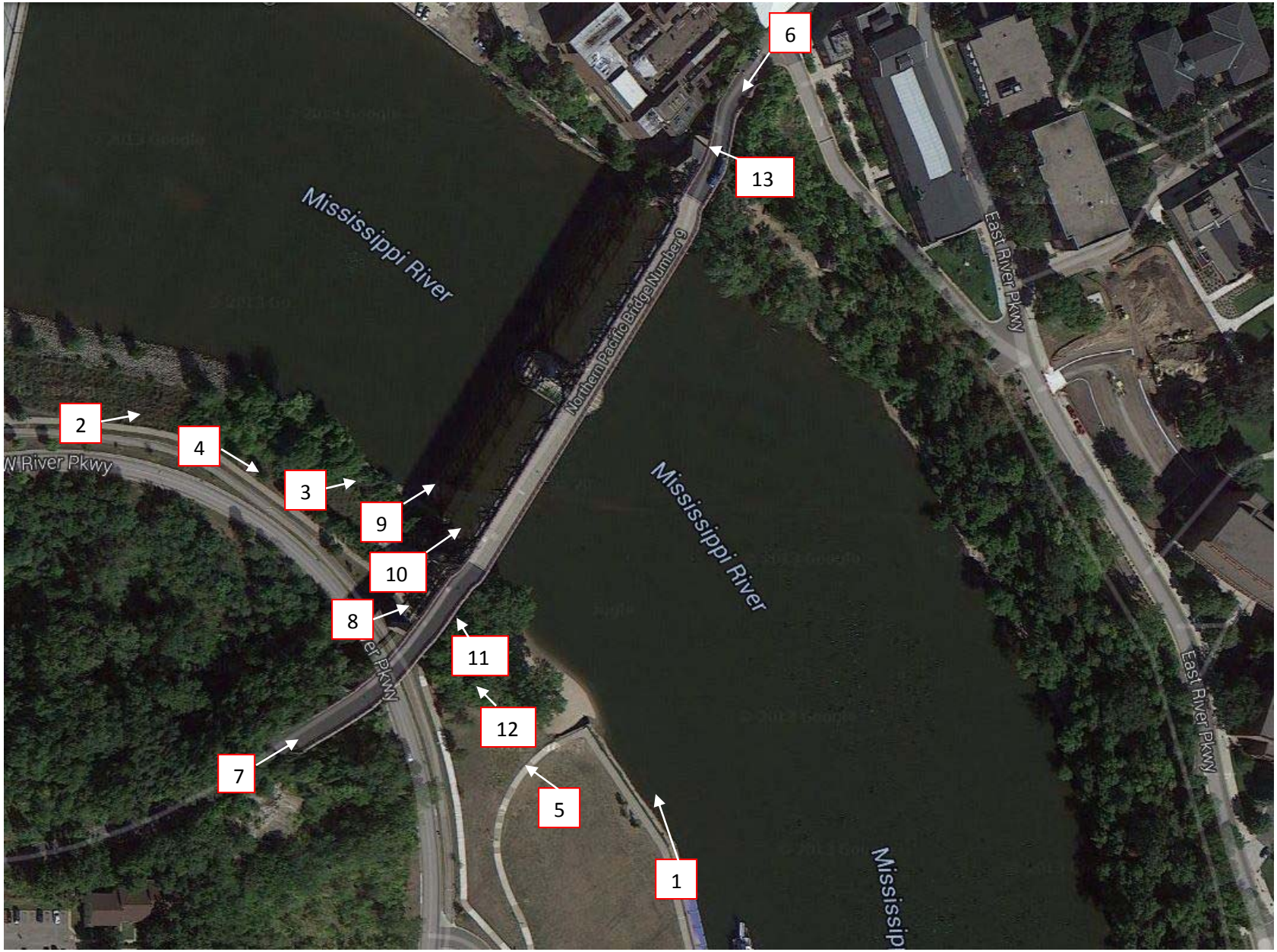

Northern Pacific Bridge No. 9
Hennepin County
Minnesota
1 inch = 150 feet
GIS User Community



Northern Pacific Bridge No. 9
Hennepin County
Minnesota

NAD83 Zone 15N UTM Easting	480992.4
NAD83 Zone 15N UTM Northing	4980524.6

1 inch = 2,000 feet


6
13
Mississippi River
Northern Pacific Bridge Number 9
East River Pkwy
2
4
3
9
10
8
11
12
7
5
1
Mississippi River
East River Pkwy

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Northern Pacific Railway Bridge No. 9
Name of Property
Hennepin, Minnesota
County and State
"Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"
Name of multiple listing (if applicable)

Section number Photos Page 1

Photo 1 of 13
MN_Hennepin County_Bridge No. 94246_0001
Bridge 94246, elevation. Facing West.

Photo 2 of 13
MN_Hennepin County_Bridge No. 94246_0002
Bridge 94246, elevation. Facing East.

Photo 3 of 13
MN_Hennepin County_Bridge No. 94246_0003
Bridge 94246, elevation. Facing Northeast.

Photo 4 of 13
MN_Hennepin County_Bridge No. 94246_0004
Bridge 94246, elevation. Facing East.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Northern Pacific Railway Bridge No. 9
Name of Property Hennepin, Minnesota
County and State "Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"
Name of multiple listing (if applicable)

Photo 5 of 13
MN_Hennepin County_Bridge No. 94246_0005
Bridge 94246, elevation. Facing West.

Photo 6 of 13
MN_Hennepin County_Bridge No. 94246_0006
Bridge 94246, deck. Facing Southwest.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Northern Pacific Railway Bridge No. 9
Name of Property
Hennepin, Minnesota
County and State
"Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"
Name of multiple listing (if applicable)

Photo 7 of 13
MN_Hennepin County_Bridge No. 94246_0007
Bridge 94246, deck. Facing Northeast.

Photo 8 of 13
MN_Hennepin County_Bridge No. 94246_0008
Bridge 94246, Pratt truss. Facing Northeast.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Northern Pacific Railway Bridge No. 9
Name of Property
Hennepin, Minnesota
County and State
"Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"
Name of multiple listing (if applicable)

Section number Photos Page 5

Photo 9 of 13
MN_Hennepin County_Bridge No. 94246_0009
Bridge 94246, Main span and pier. Facing Northeast.

Photo 10 of 13
MN_Hennepin County_Bridge No. 94246_0010
Bridge 94246, Pratt truss detail. Facing Northeast.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Northern Pacific Railway Bridge No. 9
Name of Property
Hennepin, Minnesota
County and State
"Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"
Name of multiple listing (if applicable)

Section number Photos Page 6

Photo 11 of 13
MN_Hennepin County_Bridge No. 94246_0011
Bridge 94246, Plate girder. Facing East.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number Photos Page 7

Northern Pacific Railway Bridge No. 9
Name of Property
Hennepin, Minnesota
County and State
"Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"
Name of multiple listing (if applicable)

Photo 12 of 13
MN_Hennepin County_Bridge No. 94246_0012
Bridge 94246, Approach pier. Facing East.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Northern Pacific Railway Bridge No. 9
Name of Property Hennepin, Minnesota
County and State "Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"
Name of multiple listing (if applicable)

Section number Photos Page 8

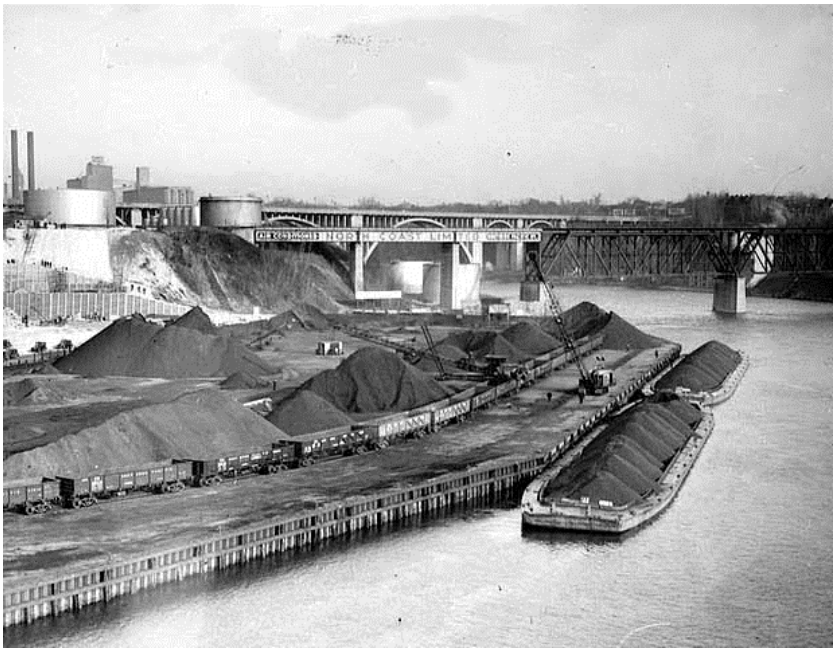
Photo 13 of 13
MN_Hennepin County_Bridge No. 94246_0013
Bridge 94246, Bridge plate. Facing Southwest.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Northern Pacific Railway Bridge No. 9
Name of Property Hennepin, Minnesota
County and State "Iron & Steel Bridges in MN, 1873-1945" and "Railroads in Minnesota, 1862-1956"
Name of multiple listing (if applicable)

Additional Documentation:



Northern Pacific Bridge No. 9, c. 1940.
MHS HD1.1 p42