NPS Form 10-900
(Rev. 8-86)

1849

OMB No. 1024-0018

SEP 29 1989

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 of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Nymore Bridge
other names/site number Bridge No. 2366

2. Location

street & number First Street over Mississippi River N/A ☐ not for publication
city, town Bemidji N/A ☐ vicinity
state Minnesota code MN county Beltrami code 007 zip code 56601

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
		Contributing	Noncontributing
☐ private	☐ building(s)		buildings
☒ public-local	☐ district		sites
☐ public-State	☐ site		
☐ public-Federal	☒ structure	1	structures
	☐ object		objects
		1	0 Total

Name of related multiple property listing:
~~Reinforced-Concrete Highway Bridges~~ in Minn., 1900-1945

Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, 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. ☐ See continuation sheet.

Nina Archabal — 9/22/89

Signature of certifying official Nina M. Archabal — Date

State Historic Preservation Officer

State or Federal agency and bureau Minnesota Historical Society

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

☒ entered in the National Register. ☐ See continuation sheet.
☐ determined eligible for the National Register. ☐ See continuation sheet.
☐ determined not eligible for the National Register.
☐ removed from the National Register.
☐ other, (explain:) _____

Entered in the National Register — 11/6/89

for Signature of the Keeper — Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)
Transportation, road-related

Current Functions (enter categories from instructions)
Transportation, road-related

7. Description

Architectural Classification
(enter categories from instructions)

Other: Reinforced-concrete bridge
Classical Revival

Materials (enter categories from instructions)

foundation
walls
roof
other reinforced concrete

Describe present and historic physical appearance.

X ☐ See continuation sheet

7. DESCRIPTION

Nymore Bridge (MNDOT Bridge No. 2366) is located in downtown Bemidji, Beltrami County, Minnesota, where it carries First Street (MSAS 110) over the Mississippi River. At this point the Mississippi is essentially a channel between Lake Bemidji on the north and Lake Irving on the south. When built in 1916, the bridge carried "Old Highway 2," connecting the city of Bemidji with the village of Nymore.[1] About that same time (1917), Nymore was in the process of being annexed by the city of Bemidji as the fifth ward. The main city traffic is now carried by MNDOT Bridge No. 5316, located a short distance northeast on Paul Bunyan Drive (State Trunk Highway 197), although Nymore Bridge continues to serve local traffic.

Aligned on a northwest-southeast axis, Nymore Bridge (#2366) is a three-span, reinforced-concrete, filled-spandrel, barrel-vault, segmental-arch bridge, with no sidewalks and "U" abutments. Overall length is 168 feet, with a center span length of 65 feet, and adjacent spans of approximately 40 feet; out-out width is 31 feet, carrying a 28-foot roadway. Maximum vertical clearance is approximately 15 feet. Piers and abutments are marked by prominent pilasters. The piers have round starlings, identical on both upstream and downstream sides. The bridge has Neoclassical elements, including raised, bush-hammered panels on pilasters, abutments, spandrel walls, and the filled-panel railings. A large utility pipe obscures (but does not alter) the west railing. Five of eight original light-standards survive. The bridge retains structural and design integrity.

The reinforcing system employed in the Nymore Bridge was patented in 1906 by George M. Cheney, Indianapolis, Indiana, and received Letters Patent No. 820,921. Cheney's patent was assigned to the Standard Reinforced Concrete Company, also of Indianapolis, Indiana, who prepared the plans and specifications for Nymore Bridge.[2] Cheney's system basically involves constructing an arched metal truss of angles and gusset plants, separated into vertical panels, all of which is pinned and/or wired together. Angles extend up to reinforce the spandrel walls. This structure is erected, forms constructed around it, concrete poured, and the arch truss becomes embedded in the concrete. Cheney claimed that his system was designed "to produce a reinforcing structure adapted to be embedded within the concrete, the construction and arrangement of said reinforcing structure being such as to eliminate or nearly eliminate the probability of cracking, but also being such that if there be cracking it will occur along predetermined lines, the concrete structure being so formed as to render less apparent any such cracks".[3]

1. "New Bridge Over Mississippi Inlet to Cost $22,772," Bemidji Daily Pioneer, August 22, 1916, p. 1; see also notation on photograph #P-1607, "New Concrete Bridge," c1916, in Beltrami County Historical Society.

2. See Russell N. Edwards, Standard Reinforced Concrete Co., to C.E. Nagle, Bridge Engineer, Minnesota Highway Commission, August 24, 1916, in MNDOT files for Bridge No. 2366.

3. See Specifications of Letters Patent for Patent No. 820,921.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

☐ nationally ☒ statewide ☐ locally

Applicable National Register Criteria ☐ A ☐ B ☒ C ☐ D

Criteria Considerations (Exceptions) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

Areas of Significance (enter categories from instructions)	Period of Significance	Significant Dates
Engineering	1917	1917
Architecture		

Cultural Affiliation

N/A

Significant Person

N/A

Architect/Builder

Engr.:Standard Reinforced Concrete
Engr.:Cheney, George M.

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

☒ See continuation sheet

8. SIGNIFICANCE

The Nymore Bridge (MNDOT Bridge No. 2366) is significant in the areas of engineering and architecture in the context of Minnesota Reinforced-Concrete Highway Bridges, 1900-1945. It is an excellent, unaltered, very early, large, urban, barrel-vault, reinforced-concrete bridge in Minnesota. It is additionally significant for its use of a patented reinforcing system during the period of experimentation in reinforcing materials and systems.

Designed and built in 1916, it is one of a small group of early, large, reinforced-concrete arch bridge designed in the Classical Revival style, which is appropriate for the City Beautiful movement then in vogue for prominent urban structures. It was planned to connect the city of Bemidji with the village of Nymore, which was annexed by Bemidji about 1917 and became the city's fifth ward. Not only was the crossing of political significance, giving the bridge its original name, but also is a geographically important crossing. When built, Nymore Bridge carried state route no. 2 over the Mississippi River channel between the city's two major lakes, Lake Bemidji and Lake Irving. Today this route has become U.S. 2, which skirts the city, and Nymore Bridge carries State Trunk Highway 197 (also known as Paul Bunyan Drive).

The plans and specifications for Nymore Bridge were prepared by the Standard Reinforced Concrete Company of Indianapolis, Indiana. The firm used the assigned Letters Patent No. 820,921 for "Concrete-Bridge Reinforcement," which had been granted in 1906 to George M. Cheney, also of Indianapolis, Indiana. Cheney's system involved embedding in the concrete a metal-arch truss, which was engineered to produce a minimum amount of cracking in the finished surface. This was not Cheney's first bridge patent. In 1902 he was granted Patent No. 708,463 for "Bridge Construction" (to construct reinforced-concrete arch bridges and culverts), which also involved a metal arch system, including the railing, which was embedded in poured concrete.

Two contractors are reported to have bid on the Standard company's design incorporating Cheney's patent: the Illinois Steel Bridge Company and the Minneapolis Bridge Company.[1] The Illinois firm, represented by St. Paul, Minnesota, agents John Zelch and P.T. Walton, had the winning low bid. The final bid, following negotiations with the city, was $22,772. Both firms also bid on a two-arch version and a steel bridge. Zelch had served in the Minnesota House of Representatives 1891-93 and 1905-09.[2] From c1912 to c1935, either with Walton or working alone, he represented the Illinois company.[3]

The scheduled completion date was January 1, 1917, but a series of problems, including strikes and bad weather, delayed the work.[4] As a result, the structure was not completed until the fall of 1917.[5]

1. Bedmiji Daily Pioneer, August 22, 1916, p. 1.

2. See Minnesota Congressmen, Legislators, and other Elected State Officials, W.F. Toensing, comp. (St. Paul: Minnesota Historical Society, 1971), p. 132.

3. Robert M. Frame III, "Historic Bridge Project," A Report to the Minnesota State Historic Preservation Office (1985), pp. 80, 100, 102.

4. "Bridge Complete in about a Year," Bemidji Daily Pioneer, March 21, 1917, p. 1.

5. See city council report, Bemidji Daily Pioneer, September 5, 1917, p. 1.

9. Major Bibliographical References

Bemidji Daily Pioneer. 1916-17

Frame, Robert M. III. "Historic Bridge Project." Report for the Minnesota State Historic Preservation Office. 1985

Minnesota. Department of Transportation. Records Storage File for Bridge No. 2366. St. Paul.

U.S. Patent Office. Letters Patent 820, 921. George M. Cheney. 1906.

☐ See continuation sheet

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 # _____

Primary location of additional data:
- ☒ State historic preservation office
- ☐ Other State agency
- ☐ Federal agency
- ☐ Local government
- ☐ University
- ☐ Other

Specify repository: _____

10. Geographical Data

Acreage of property Less than 1 acre

UTM References

	Zone	Easting	Northing
A	15	358450	5258560
B			
C			
D			

☐ See continuation sheet

Verbal Boundary Description

The nominated property defines a rectangle measuring 168 feet northwest-southwest by 60 feet southwest-northeast, the vertices of which coincide with the outside corners of the bridge wingwalls.

☐ See continuation sheet

Boundary Justification

Based on dimensions for overall structure length and overall deck width as determined by the Minnesota Department of Transportation and report on the Structure Inventory Sheet for Bridge 2366, the boundaries are designed to enclose the total bridge superstructure, total substructure, and all other integral abutment and approach elements.

☐ See continuation sheet

11. Form Prepared By

name/title Dr. Robert M. Frame III, Historical Consultant
organization N/A date August 15, 1989
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city or town St. Paul state _____ zip code _____