

NORTH PARK BRIDGE
Spanning the Grand River at North Park Street
Grand Rapids
Kent County
Michigan

HAER No. MI-47

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MICH
T. GRARA
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
Philadelphia Support Office
U.S. Custom House
200 Chestnut Street
Philadelphia, PA 19106

HISTORIC AMERICAN ENGINEERING RECORD

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NORTH PARK BRIDGE

HAER No. MI-47

Location: Spanning the Grand River at North Park Street in Grand Rapids, Kent County, Michigan

USGS Cedar Springs, S.W. Quadrangle, Universal Transverse Mercator Coordinates: 16.609080.476400

Date of Construction: 1903. Altered 1933, 1962.

Engineer: L.W. Anderson

Present Owners: City of Grand Rapids
300 Monroe Avenue, N.W.
Grand Rapids, MI 49503

City of Walker
4243 Remembrance Road, N.W.
Walker, Michigan 49504

Present Use: Closed to traffic since September, 1988. Formerly used for vehicular traffic. To be demolished in 1991.

Significance: The North Park Bridge is the second longest through Pratt truss bridge of its kind in Michigan. It has been officially determined to be eligible for listing in the National Register of Historic Places by the Michigan Bureau of History.

Project Information: This historic documentation was undertaken in November 1990 in accordance with the Memorandum of Agreement by the Federal Highway Administration, Michigan State Historic Preservation Officer, Advisory Council on Historic Preservation, Michigan Department of Transportation, City of Walker, Michigan and City of Grand Rapids, Michigan as a mitigative measure prior to demolition and replacement of the bridge.

Patricia Fisher
Environmental Scientist
WW Engineering & Science
Grand Rapids, Michigan

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The existing North Park Bridge spans the Grand River and is located about 500 feet north of Interstate Highway 96 (as shown on the general location map) in Section 6 of the City of Grand Rapids, Kent County, Michigan (T.7N, R.11W). The bridge connects the City of Grand Rapids (east side) to the City of Walker (west side). The bridge and its immediate surroundings are shown on the North Park Bridge site map.

The North Park Bridge was built in 1903 by the New Jersey Bridge Company of Manasquan, New Jersey (2). L.W. Anderson was the City Engineer of Grand Rapids at this time. Prior to the construction of this bridge, the flood of March 1903 had washed away the original 589-foot wooden bridge built in 1884 by the Canal Street Gravel Road Company (1).

The bridge is a five-span, steel-through-truss with each span approximately 116 feet in length. According to Cyclopedia of Civil Engineering (1908), a through-truss bridge is defined as one where "the floor system connects the bottoms of trusses" and "traffic moves through the space between the trusses". The North Park Bridge truss is a Pratt truss design invented in America in 1844 by Thos and Caleb Pratt (4). The Pratt truss design accounted for 90 percent of the truss bridges built in the early 1900s (4).

The bridge rests on four concrete piers and a concrete abutment at each end. The bridge deck, which is not original, consists of an asphalt wearing surface with an Armco steel bridge plank (2). Structural modifications were made to increase the load capacity in 1933 with the addition of steel bars (2). Also in 1962 the original wooden plank deck was replaced with a corrugated steel deck and three inches of asphalt (2).

The bridge is 21 feet wide, including the areas under the guard rails. The roadway is 19 feet wide. Immediately east of the bridge the pavement is approximately 30 feet wide and widens to 40 feet at the North Park Street/Monroe Street intersection. East of this intersection it widens to 50 feet through the North Park Business District. The pavement is approximately 22 feet wide. Immediately west of the bridge and within 800 feet west of the bridge the pavement widens to 33 feet.

A wooden-plank sidewalk exists on the north side of the bridge outside of the trusses. The sidewalk is 6 feet wide and consists of wood stringers with traverse wood plank. The exterior rail of the sidewalk is steel lattice.

A streetcar bridge once existed adjacent to the north side of the bridge (3). The abutments that supported this bridge still exist.

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The North Park Bridge has been officially determined by the Michigan Historic Preservation Officer and the Department of the Interior as eligible for the National Register of Historic Places because it is the second longest extant through-truss highway bridge of its kind in Michigan and because of its age (2). There are 42 similar bridges also eligible for the National Register in Michigan (2).

Historical information on the North Park Bridge is limited. Some pertinent information was found at the Grand Rapids Public Library and City Historic Preservation Office. Mr. Donald Van Der Hoff of Grand Rapids provided historical information on the landmarks adjacent to the bridge. The original bridge plans, modifications, and historic photographs were available from the Engineer's Office, Grand Rapids, Michigan. Mr. David Wier of Comstock Park provided some historic postcards of the bridge. No significant events or persons are known to be connected with the bridge.

According to Mr. Donald Van Der Hoff of Grand Rapids, the area neighboring the North Park Bridge was once an active recreational outlet for many people. A boat and canoe club once existed just north of the bridge on the east bank of the Grand River. Sometime in the 1960's the club burned; its stone foundation is still visible. Also on the east bank south of the bridge was the North Park Pavilion. Built in the late 1800's by Mr. Charles Comstock (a real estate developer and owner of a local tub and pail factory) and his son-in-law, the pavilion was destroyed by fire in the 1940's. The Comstock Park Fairgrounds were once located on the west bank of the river.

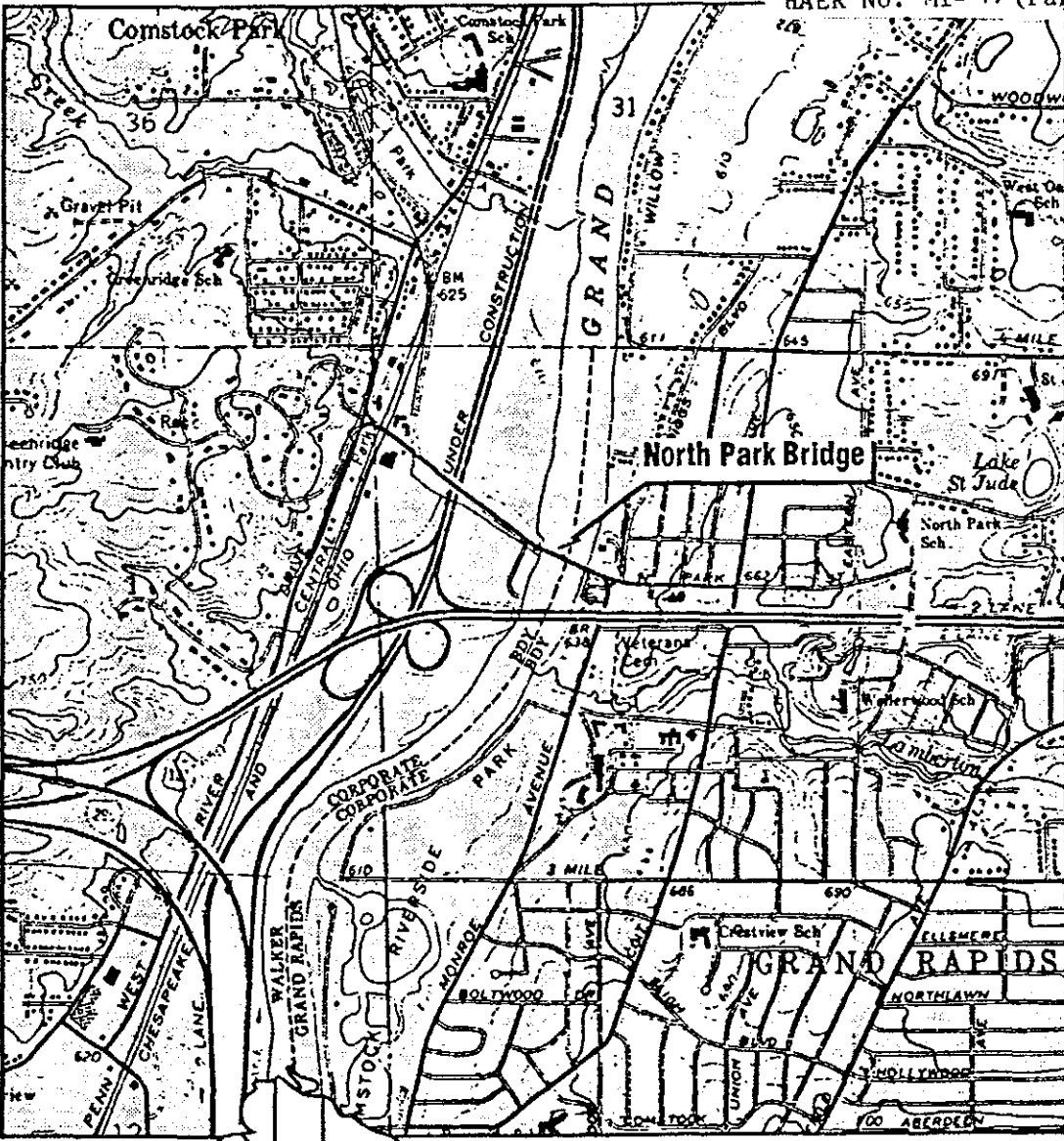
The North Park Bridge has served as an important link between the City of Walker and the City of Grand Rapids. In the past it had provided access to the recreationally-oriented area of Grand Rapids. More recently, prior to its closing, it was a convenient link between the North Park Business District and U.S. Route 131. The bridge was also very important to police and fire protection. According to traffic counts in 1987 by the City of Grand Rapids, the North Park Bridge had an average daily traffic of 10,800 vehicles per day.

A bridge inspection in April 1985 revealed that a great deal of repair work was needed on the North Park Bridge. A reevaluation of bridge's load structure in December 1987 showed extreme rust and deterioration to the point where the load limit was decreased to three tons. This prevented heavy vehicles such as school buses, farm equipment, or trucks from using the bridge.

In compliance with recommendations made by bridge inspectors, the bridge has been closed since September, 1988 (2).

BIBLIOGRAPHY

1. "Bridge is Gone!" The Grand Rapids Herald, March 9, 1903, page 1. (Original article in possession of Grand Rapids Public Library, Michigan Room).
2. City of Walker. Environmental Assessment and Section 4(f) Evaluation For Bridge Replacement, North Park Bridge Over the Grand River, City of Walker and City of Grand Rapids, Kent County, Michigan. May 18, 1990. (Copy of assessment in possession of City Engineer's Office, Grand Rapids, Michigan).
3. Godfrey-Anderson collection of scrapbooks, Collection # 33, Circa 1958. (Original collection in possession of Grand Rapids Public Library, Michigan Room).
4. Turneaure, Frederick E. Cyclopedia of Civil Engineering. Vol. 4. Chicago: American Technical Society, 1908.



Source: U.S. Geological Survey Map, Cedar Springs, S.W. Quadrangle

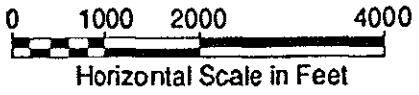
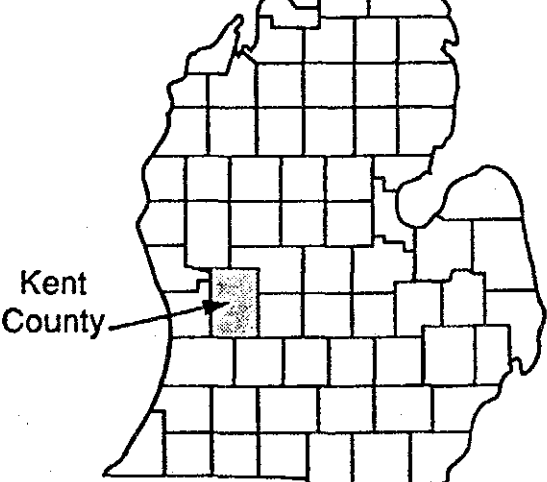


Figure 1
North Park Bridge
Grand River
November, 1990 21889

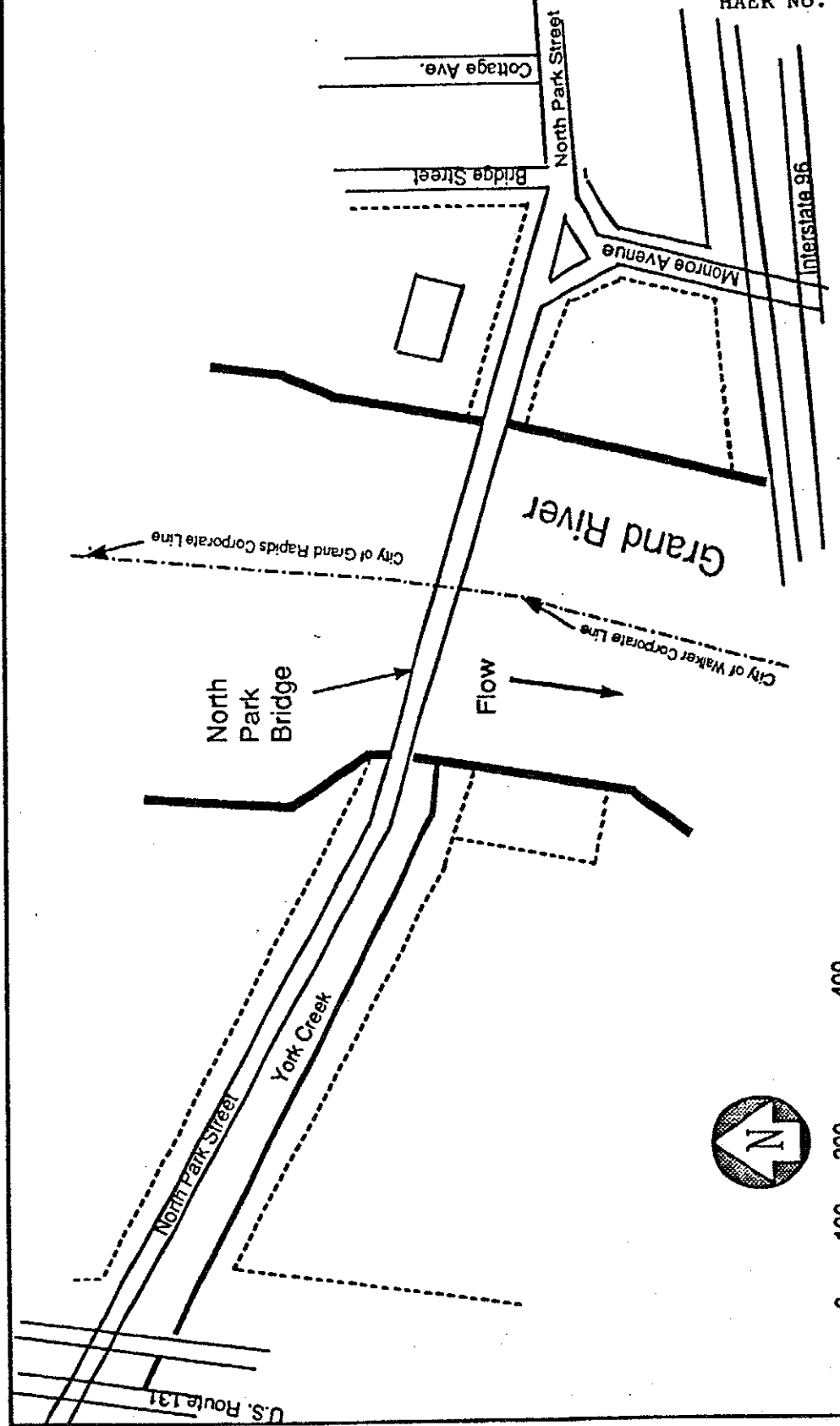


Figure 2
Site Map
North Park Bridge over
the Grand River
November, 1990