ENTRIES IN THE NATIONAL REGISTER

STATE  NEW YORK

Date Entered  SEP 29 1976

Name  Location

Miller House  North White Plains
            Westchester County

√ Erie Canal: Second Genesee Aqueduct  Rochester
            Monroe County

Also Notified
Hon. Jacob K. Javits
Hon. James L. Buckley
Hon. Richard L. Ottinger
Hon. Frank Horton

COPY OF CONGRESSIONAL NOTIFICATION

INT: 2950-75
NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM

SEE INSTRUCTIONS IN HOW TO COMPLETE NATIONAL REGISTER FORMS
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME
HISTORIC
The Second Genesee Aqueduct
AND/OR COMMON
The Broad Street Aqueduct and Bridge

2 LOCATION
STREET & NUMBER
Broad Street across the Genesee River
CITY, TOWN
Rochester
STATE
New York

3 CLASSIFICATION
CATEGORY
DISTRICT
BUILDING(S)
STRUCTURE
SITE
OBJECT

OWNERSHIP
PUBLIC
PRIVATE
BOTH
PUBLIC ACQUISITION
IN PROCESS
BEING CONSIDERED

STATUS
OCCUPIED
UNOCCUPIED
WORK IN PROGRESS
ACCESSIBLE
YES RESTRICTED
YES UNRESTRICTED
NO

PRESENT USE
AGRICULTURE
COMMERCIAL
EDUCATIONAL
ENTERTAINMENT
GOVERNMENT
INDUSTRIAL
MILITARY
TRANSPORTATION

4 OWNER OF PROPERTY
NAME
City of Rochester
STREET & NUMBER
City Hall, 30 Broad Street
CITY TOWN
Rochester
STATE
New York

5 LOCATION OF LEGAL DESCRIPTION
COURTHOUSE
Monroe County Courthouse
REGISTRY OF DEEDS, ETC
STREET & NUMBER
CITY TOWN
Rochester
STATE
New York

6 REPRESENTATION IN EXISTING SURVEYS
TITLE
see separate sheet
DATE
FEDERAL
STATE
COUNTY
LOCAL
DEPOSITORY FOR SURVEY RECORDS
CITY, TOWN
STATE
# NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

The Second Genesee Aqueduct

<table>
<thead>
<tr>
<th>CONTINUATION SHEET</th>
<th>ITEM NUMBER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

**Inventories:**

Landmarks of the City of Rochester

1972    local
Rochester Preservation Board, City of Rochester Planning Bureau
Public Safety Building, Civic Center Plaza, Rochester, New York

Landmark Society Inner Loop Survey
1974    local
Landmark Society of Western New York
130 Spring Street
Rochester, New York

N.Y.S. Historic Trust Statewide Inventory
1967    state
N.Y.S. Division for Historic Preservation
Parks and Recreation, Building #1
Empire State Plaza
Albany, New York 12238
The Genesee River bisects the City of Rochester, and one of the major downtown crossings is the Broad Street Bridge, a 1927 concrete bridge built on top of an 1842 stone aqueduct.

The overall length of the aqueduct including the wings and abutments is 800 feet. The aqueduct is 70 feet wide and has massive parapets on either side. The parapets were described as follows while under construction in 1838:

The parapet walls forming the sides of the trunk are 10 feet thick at coping and 11 feet, 10 1/2 inches at the water-table, and are covered with a coping one foot thick and 11 feet wide, which is to support the railings. The width of the waterway of the trunk at top water line is 45 feet and at its bottom, which is to be formed of cut stone, is 42 feet 8 inches.\(^1\)

The aqueduct has seven arches of the following dimensions:

The chord of each is 52 feet and the reversed side is 10 feet...
The arch stones forming the thickness of the ark are three feet long at the piers and abutments, and two feet six inches at the crown. The courses of the ark stone vary in thickness from 17 inches at the spring to 11 inches at the crown, with a keystone of 16 inches.\(^2\)

The two abutments and six piers between the arches and supporting them are constructed of large blocks of gray limestone built on solid rock in the in the river bed.\(^3\) A single horizontal course of stone marks the aqueduct's water table 18 feet above the base of the piers. Above the water table to the top of the coping is another 8'6" high; thus the overall height of the aqueduct is 27 feet from the base of the piers to the top of the coping.\(^4\)

The stone for the exterior of the aqueduct is both Lockport and Onondaga compact gray stone, and the interior stonework on the spandrels and parapets was quarried directly from the river bed itself.\(^5\) The respective treatments of the interior and exterior stonework were explained while the aqueduct was under construction:

---

\(^1\)Henry O'Reilly, Sketches of Rochester, Published by William Alling: 1838, p. 239.
\(^2\)Ibid, p. 239.
\(^3\)Ibid, p. 239.
All the stone first mentioned [exterior] is to be cut to exact given dimensions or to patterns, and with such care and exactness that when laid, no cut stone joint is to be more than 1/8 or an inch thick, including the necessary mortar; and the stone composing the interior as above stated, is to be well hammer-dressed to parallel beds, and so laid as to have not more than 1/2 an inch joint, the whole to be laid in the best of cement mortar and grout, and to be imperious to water.6

This contemporary commentary on the aqueduct in 1838 goes further to convey the overall effect of this imposing structure:

The stones composing all parts of this massive work are proportionably large to ensure strength, solidity and permancy to the structure and likewise to give a bold and appropriate appearance.7

Matching the "solidity and permanence" of the aqueduct, the 1927 bridge is a concrete superstructure faced with stone. Many of the aqueduct's architectural elements are employed in the newer bridge, notably the continuation of the piers which delineate the same seven structural bays. For every single stone arch of the aqueduct, the bridge has three small concrete arches. The bed of the aqueduct was left largely intact and subway tracks were run along it. These are not presently in full use but may be reactivated with a new rapid transit plan for the Rochester area. In 1973 the concrete bridge was reinforced with steel rods and has continued to support regular city automobile traffic since the 1920's.

7Ibid, p. 340.
Bridging the Genesee River, one of the largest waterways which lay in the path of the Erie Canal, Rochester's Broad Street Aqueduct and Bridge (originally the Second Genesee Aqueduct) is one of four major aqueducts in the mid-nineteenth century Erie Canal system. With the resourceful reuse for twentieth century automobile and subway traffic on a concrete superstructure, the Broad Street Aqueduct has continued to serve a transportation need for its entire 130 year history.

This 800 long foot long aqueduct was the third largest aqueduct of the Erie Canal System. The Rexford Aqueduct over the Mohawk River (originally 1,137 feet long with 26 arches) has been demolished while approximately 17 arches of the Richmond Aqueduct (originally 840 feet long with 31 arches) survive over the Seneca River. The famed Schoharie Aqueduct at Fort Hunter (a National Historic Landmark) is also partially intact and originally covered 624 feet with 14 arches.

Although hailed as a major accomplishment when completed in 1822, the first eleven arch aqueduct over the Genesee River at Rochester soon proved to be of leaky construction. Plans for a second one beside the first were prepared under the supervision of two canal engineers, Nathan S. Roberts and M.M. Hall, in 1837.

Nathan Roberts was one of the three chief engineers for the Erie Canal enlargement and a veteran canal engineer by the late 1830's. A self-educated man, he had begun his career surveying the section of the original Erie Canal from Rome to Montezuma and played an important part in the construction of the entire central section of the canal. From 1819 to 1822 he made plans for the locks from Clyde to Rochester and was in charge of the construction of the double locks at Lockport from 1822-25. Roberts then took his experience on New York State canals to the Chesapeake and Ohio Canal Company and went on to build the bridge across the Potomac River at Harper's Ferry.

---

His last project before returning to New York State was examining the Muscle Shoals of the Tennessee River in Alabama.2

The second Genesee Aqueduct in Rochester was constructed on a different angle to the first. It rested partly on the old abutments on the west side but joined the shore about 100 feet upstream on the eastern end, thereby lessening the right angle turn the canal made on that side. The Weighlock Building stood at the east terminus of the aqueduct on the present site of the Public Library. The second aqueduct was wider and deeper than the first and cost $445,3473 as compared to $83,000 for the first one, built less than twenty years earlier. The impact of the canal on Rochester's economy had already proved this new improved aqueduct a worthwhile expense. Population figures alone show the "boom" effects of the canal. The year of the opening of the canal, Rochester was a village of 1,000. In 1838 when the second aqueduct was under construction, the population had jumped to 20,000.

The transformation from aqueduct to bridge occurred after the old Erie Canal route through downtown Rochester was abandoned with the completion of the New York State Barge Canal in 1919. The canal right-of-way, including the aqueduct, was purchased by the city in 1922. At that time an ambitious subway and roadway project was on the drawing boards. These plans had been drawn up in 1921 by LeGrand Brown and approved and implemented in 1927. Broad Street was extended over the old aqueduct on a concrete superstructure, while a subway ran under the street. The public transportation aspect of the subway never fulfilled its promise, though it was revived shortly during World War II. Today the northwestern arm of the subway is used for freight only.

The only major aqueduct of the Erie Canal which survives intact, the monumental Broad Street Aqueduct and Bridge is an unusual combination of nineteenth and twentieth century building materials applied to the transportation demands of each century.

MAJOR BIBLIOGRAPHICAL REFERENCES

See separate sheet.

GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY: under one acre

UTM REFERENCES

<table>
<thead>
<tr>
<th>ZONE</th>
<th>EASTING</th>
<th>NORTHING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>118</td>
<td>238.74</td>
</tr>
<tr>
<td></td>
<td>3049</td>
<td>094108</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

<table>
<thead>
<tr>
<th>STATE</th>
<th>CODE</th>
<th>COUNTY</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FORM PREPARED BY

NAME / TITLE: Landmark Society of Western New York
Cornelia E. Brooke, Research Assistant

ORGANIZATION: N.Y.S. Parks and Recreation, Division for Historic Preservation

DATE: May, 1975

STREET & NUMBER: Empire State Plaza

TELEPHONE: 474-0479

CITY OR TOWN: Albany

STATE: New York

STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL __ STATE X LOCAL __

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE: [Signature]

DATE: 2/6/76

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

KEEPER OF THE NATIONAL REGISTER
9. Major Bibliographic References:


Files of the Landmark Society of Western New York, 130 Spring Street, Rochester, New York.