

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: 89000775

Date Listed: 7/05/89

Draw Bridge at New Bridge

Bergen

New Jersey

Property Name

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.

Linda McColland
Signature of the Keeper

July 5, 1989
Date of Action

=====

Amended Items in Nomination:

Significance for criteria A, for bridge's role in industry and commerce, should be checked.

DISTRIBUTION:

- National Register property file
- Nominating Authority (without nomination attachment)
- MARO-NPS

United States Department of the Interior
National Park Service

MAY 31 1989

National Register of Historic Places
Registration Form

NATIONAL
REGISTER

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 Draw Bridge at New Bridge
other names/site number New Bridge
West abutment is at Main Street, Borough of River Edge;

2. Location East abutment is at Old New Bridge Road, Borough of New Milford
street & number & Township of Teaneck at Hackensack River not for publication
city, town River Edge, New Milford & Teaneck vicinity
state New Jersey code 034 county Bergen code 003 zip code *
*River Edge 07661, New Milford 07646, Teaneck 07666

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	_____	_____ buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	_____	_____ sites
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	<u>1</u>	_____ structures
	<input type="checkbox"/> object	_____	_____ objects
		<u>1</u>	_____ Total

Name of related multiple property listing: NA
Number of contributing resources previously listed in the National Register NA

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.
[Signature] 05/22/89
Signature of certifying official Date
Assistant Commissioner for Natural & Historic Resources/DSHPO
State or Federal agency and bureau

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:)
[Signature] July 5, 1989
Signature of the Keeper Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)
TRANSPORTATION - road & pedestrian related

Current Functions (enter categories from instructions)
RECREATION & MUSEUM - museum, park
TRANSPORTATION - pedestrian related

7. Description

Architectural Classification
(enter categories from instructions)

Materials (enter categories from instructions)

OTHER: Pratt-type low truss bridge

foundation sandstone abutments on wood pilings
walls & concrete (same for turntable pier),
wood piles & fenders, wrought iron
roof superstructure with a wood plank deck.
other

Describe present and historic physical appearance.

The New Bridge span is a Pratt-type, low truss, rim-bearing swing bridge erected for the County of Bergen in 1889, probably by the King Iron Bridge Company of Cleveland, Ohio. It is situated at the narrows of the Hackensack River seventeen miles upriver from Newark Bay, connecting Main Street in the Borough of River Edge (west abutment) with Old Bridge Road (east abutment) lying on the border of the Borough of New Milford and the Township of Teaneck. According to a survey based on correspondence with county engineers throughout the State of New Jersey, New Bridge is believed to be the oldest extant highway swing bridge in the state. This bridge, together with its rotating mechanism, sandstone pier and abutments - and even its wood pilings and fenders in midstream - occupies its original location and possesses integrity of design and appearance, as it has been but slightly modified since its installation a century ago. It contributes its name and hence focal significance to the surrounding neighborhood which has been called New Bridge since the construction of the first bridge at this site in 1744. Here it stands in association with the sites of a tidal mill (1695-1852), the former New Bridge Hotel (circa 1766; enlarged 1870; demolished 1964), a former coal and lumber depot, with such extant features as a river landing, canoe club (1902), general storehouse (circa 1825; enlarged circa 1870), bridge-tender's residence (circa 1890) and the historic Ackerman-Zabriskie-Steuben House (1713; enlarged 1752). Many of these cultural features are contained within or are viewable from the confines of New Bridge Landing Historic Park.

The deck of this 1889 iron bridge is 110'-10" overall at the centerline spanning a 107' river opening. The overall width is 20'-3" with a roadway 17'-6" wide. The bridge turntable rests on a 20' diameter circular ashlar stone pier, now covered with a cement finish. The original sandstone abutments are finished in like manner. On the top surface of the southwest abutment, a stone slab bears the inscription: "J.W. STAGG, Contractor 1888". He had been awarded the substructure contract for underwater timber work as well as the stonework on abutments, wing-walls and center pier necessary to the installation of the present bridge.

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The truss consists of seven panels of latticed channel columns and chords, with sloping ends. The panels are 15'-10" in length with a center section that is 12'-10" long. The top of the top chord is 9'-10" above the top of the bottom chord. The wood plank deck is 6" higher than the top of the bottom chord. The top chord is made of paired 6" channels with 2" flanges latticed together. The columns are 7" paired channels near the center, 6" paired channels at the intermediaries and 5" paired channels at the ends. Eye bars and rods with turnbuckles, all pin connected, provide crossbracing. All original work is riveted. A lattice-type fence is attached to the interior of the north truss and four horizontal channels run the length of the south truss as railings. Large members of the truss are die-stamped "Phoenix, Philadelphia" in reference to their manufacture by the Phoenix Iron Company.

Bridgeweld of Washington, D.C. reconditioned the New Bridge in 1930, at which time batten plates and angles were welded to twelve sections of the turntable and a $\frac{1}{4}$ " x 12" plate was welded to its circumference. Sixteen new tie rods and plates were added and pinned in place. Four new 24" transverse girders and two new 18" transverse girders at the end were installed. Nine new 9" longitudinal stringers were put in place. Lattices were removed from the top of the top chords and replaced with $\frac{3}{8}$ " x 8" welded coverplate. In 1985, the bridge was painted a metallic silver.

The original substructure consists of six I-beam girders that carry nine 9" I-beam longitudinal bearers or stringers which support the present $2\frac{1}{2}$ " x 11" wooden plank deck. The floor beams are connected to the truss with U-bolts with threaded ends. The apparently intact swing-mechanism consists of gears and spaced wheels. Evidence of the capstan bar slot is covered by the present deck.

The bridge was originally floored with planking of unknown specification. If extant records are any indication of past practices, then the deck has probably been replaced at approximately 20-year intervals. During repairs made in 1930, 2" x 4" pieces laid on edge replaced the flooring. Maintenance records indicate that new 4" x 8" floor planks were installed with 6" x 6" curbs in 1951. In 1967, 3" Douglas Fir planks without curbs were used for redecking. In 1985, some vandalized planks were replaced.

In 1911, a pedestrian walkway was attached to the north side of the bridge by suspending 6" I-beams from underneath and then laying yellow pine stringers over the protruding I-beams. The walkway was planked with yellow pine (4'-0" wide). This walkway was removed in 1967 and its railing reinstalled to the

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inside of the north truss. At this time 3" x 3" channels were welded to the top and bottom of the railing on the south side, making it four bars high.

The extant bridge-system still includes most of the original piles and fenders that surrounded the open bridge and protected it from an accidental collision by vessels. These also served as breakers to shield the central pier from ice-floes and, to a certain extent, as trash-racks to prevent damage from water-borne debris. Old photographs indicate that boats frequently moored against the fenders and both fishermen and boatmen made use of the fenders as walkways of convenience.

In 1956, the iron swing-bridge was superseded by a modern concrete and steel span and roadway located 300' to the north. The old New Bridge was then preserved as a historic relic and automobile traffic prohibited by metal guide rails planted across the approaches to the bridge. The bridge, however, is maintained by the County of Bergen for pedestrian traffic.

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 NA

Areas of Significance (enter categories from instructions)

Commerce
Engineering
Industry
Transportation

Period of Significance

1889-1930

Significant Dates

1888-89

Cultural Affiliation

NA

Significant Person

NA

Architect/Builder

Joseph W. Stagg (substructure)
King Bridge Company (superstructure)

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

The span at New Bridge is the oldest extant highway swing bridge in the State of New Jersey. As such, it exemplifies the early use of industrial materials and technological ingenuity (as perfected in the last quarter of the 19th century) to solve the common problem of moving overland traffic across navigable inland waterways. Situated about 2 miles south of the head of navigation, New Bridge spanned the strategic narrows of the Hackensack River, a tidal artery of commerce, carrying the main road from Bergen Neck to the Hackensack Courthouse. It so formed a vital nexus in the flow of trade and transportation well into the present century.

In 1888, the Freeholders of Bergen County decided to replace the wooden swing bridge at this location - the last in a succession of wooden draw bridges over the Hackensack River since 1744. This replacement by a bridge of greater durability and ease of maintenance was part of a broader program to facilitate navigation in Bergen County. Commercial brickyards in the Hackensack area, then at the height of their productivity, were greatly impeded by the slow operation and low clearance of the wooden draws. By 1876, brick schooners had been supplemented by a small fleet of towboats and barges to overcome such obstacles to navigation. With the steady advance in population and a multiplication in the number of bridges on the streams, the lively water-borne traffic in coal, lumber and agricultural products had been similarly inconvenienced.

The earliest use of iron in the construction of bridges can be traced to the 18th century. Even Thomas Paine, who crossed at New Bridge in 1776, designed an iron bridge to span the Schuylkill at Philadelphia and exhibited a model there in January of 1787. He later succeeded in erecting one in Britain that was torn down for scrap in World War One. The Pratt truss became an all-iron truss by the mid-1850's but there are not true Pratt patented trusses surviving, only truss systems that resemble them. After the Civil War, large-scale iron and steel foundries were able to offer bridge components of these superior materials as safe economical alternatives to bridges fashioned from heavy timbers. Post-war

9. Major Bibliographical References

Previous documentation on file (NPS): NA
 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 # _____

See continuation sheet

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository: Bergen County Div. of Cultural & Historic Affairs, 21 Main St., Hackensack, NJ 07601-7000

10. Geographical Data

Acreage of property .40 acres (17,662.5 square feet) Hackensack Quad

UTM References

A

1	8
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5	8	1	6	8	0
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4	5	2	9	4	6	0
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Zone Easting Northing

C

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B

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Zone Easting Northing

D

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See continuation sheet

Verbal Boundary Description

See continuation sheet

Boundary Justification

See continuation sheet

11. Form Prepared By Claire Tholl, trustee emeritus; Kevin B. Tremble, V.P.; Kevin Wright,
name/title Senior Site Interpreter; Betty Schmelz, Committee Chair.
organization Bergen County Historical Society date 02/87; 12/88
street & number 1201 Main Street telephone (201) 343-9492
city or town River Edge state New Jersey zip code 07661

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development of a transcontinental network of railroads, paralleled by advances in the science and industry of metallurgy, produced numerous improvements in the design and reliability of iron bridges.

Accordingly, the Bergen County Freeholders employed the King Bridge Co. of Cleveland, Ohio, in the autumn of 1887 to install a fixed low truss iron bridge at the Old Bridge crossing in northern River Edge. At the same time, consideration was given to repairing the wooden New Bridge downstream. On April 12, 1888, a swinging iron bridge at the latter location was deemed feasible and was so approved on June 4, 1888, "at a cost not to exceed \$9,000." Eight bridge companies submitted bids.

On August 6, 1888, the contract for the superstructure was awarded to the King Iron Bridge Co. for \$3,990. By 1884, King operated the largest highway bridge-works in the United States. The company was founded by Zenus King in 1858 but was not incorporated as the King Iron Bridge and Manufacturing Co. until 1871. It established its office at the corner of St. Clair and Wason Streets in Cleveland. By 1887, the style had been shortened to the King Bridge Company.

The contract for the substructural masonry was awarded to Caroline Stagg for \$3,994. She acted as an agent for Joseph Westervelt Stagg, who operated a house-moving and bridge-building business in Englewood. He served as a Freeholder between 1871 and 1873 and was well-known in the area. On August 31, the Bergen County Democrat reported that "Joseph Stagg commenced operations this week in tearing down the bridge at New Bridge, and began laying the abutments." In November, the same newspaper said: "Contractor Stagg has completed his portion of the contract" but "no attempt is made on the part of the new contractor to do their work and thus open the highway." To accommodate the public, Joseph Stagg built a temporary foot-bridge and subsequently billed the Freeholders \$100.

On December 28, 1888, the Bergen County Democrat reported on an attempt to discover by correspondence the reason why the King Bridge Co. was defaulting on its contract. The company had offered the excuse that their manufacturing work had been extensively damaged by fire, but an inquiry to the Cleveland postmaster brought the reply: "We are informed they had a fire sometime last May; damage slight." After considerable delay, the company finally began to install the iron bridge in January of 1889. A final comment in the local paper on February 8, 1889, proclaimed: "The bridge was thrown open to public travel on Saturday, and the people are happy."

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Although contracted to the King Iron Bridge Co., the truss is all marked "Phoenix Iron Co., Philada. Pa." The Phoenix Bridge Co., a division of the Phoenix Iron Co., primarily built railroad bridges. This company had its origins in Phoenixville in 1790 but later established its offices at 410 Walnut Street in Philadelphia.

By 1928, in anticipation of the real estate boom attendant upon completion of the George Washington Bridge, plans were made to straighten the narrow winding approaches at New Bridge and to replace the obsolete span with a wider bridge of more modern design. A right-of-way was purchased running adjacent to the south end of the historic Steuben House, but no further progress on the project was made. At about this time (1930), a similar iron-bridge downstream (connecting Cedar Lane in Teaneck with Anderson Street in Hackensack) was replaced by a fixed concrete and steel span which effectively cut off navigation to the upper valley. The rotational mechanism at New Bridge thus became spurious and the bridge was secured by plates in a closed position to accommodate cars and trucks. Over the next twenty years, the rising tide of suburbanization, entirely dependent on automotive transportation, dictated the need for a safe and more efficient river crossing. Finally in 1955, a new concrete and steel span was built 300' to the north of the old iron swing bridge and the roadway accordingly diverted so as to avoid intrusion upon the historic Steuben House and its grounds. The Army Corps of Engineers then planned to demolish the old bridge. At the instigation of the Bergen County Historical Society and the Dumont Women's Club, the County of Bergen officially concurred with the preservation of the obsolete New Bridge and its retention for bicycle and foot traffic. Thus it survives as the focus of the historic park and neighborhood to which it has long lent its name.

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1. Bergen County Board of Chosen Freeholders
Bergen County Historic Sites Survey of New Milford (Ref. No. 0238-33),
River Edge (Ref. No. 0252-4) and Teaneck (Ref. No. 0260-10), 1981.
2. Bergen County Board of Chosen Freeholders
Contract Specifications between BCBCF and King Iron Bridge & Manufacturing
Co., May 27, 1884 for "Superstructure of a Low Truss Wrought Iron Bridge".
(This was a similar span located at Lodi, N.J.)
3. Bergen County Board of Chosen Freeholders
Memorandum of Agreement, BCBCF and Caroline Stagg, July 11, 1888 for masonry
work on New Bridge substructure.
4. Bergen County Board of Chosen Freeholders
Minute Book 1883-1892: May 11, 1887 (mention), April 12, 1888, May 7, June
4 (authorized to construct), August 6 (awarded contracts) September 3,
October 1, December 3, 1888 (mention).
5. Darnell, Victor C. Directory of American Bridge Building Companies: 1840-
1900. Washington, D.C. Society for Industrial Archaeology, 1984.
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Bridges in Virginia: 1865-1932. Charlottesville, Va. Virginia Highway &
Transportation Research Council, 1975. VHTRC 75-R51.
7. King Iron Bridge & Manufacturing Company
1884 Catalogue, Cleveland, Ohio, 1884. Original at Ohio Historic Society
Collection, Columbus, Ohio
8. Clegg, Miriam, It Started with a Nail Factory. Phoenixville, Pa.
9. Five repair drawings provided by Bergen County Engineer Edward Ranuska.
10. Contact with engineering departments of 21 New Jersey counties.
11. Research by other than committee members: Howard I. Durie, James L. Peck.
Comments by Abba Lichtenstein, David A. Simmons.

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12. Minutes of the Justices and Freeholders of Bergen County 1714-1794. Bergen County Historical Society
13. Paine, Thomas. The American Crisis.
14. Tustin, Joseph P. Diary of the American War. Captain Johann Ewald, 1979
15. Fitzpatrick, J.C. The Writings of George Washington. 39 vol., 1931
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17. Clayton and Nelson. History of Bergen and Passaic Counties. 1882
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20. Howitt, N. & J. Musket, Anchor and Plow: The Story of River Edge. 1976
21. Bigford, Helen. Staff Genealogy. mss
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26. Simmons, David A. Zenas King: A Bridge Builder of National Proportions.

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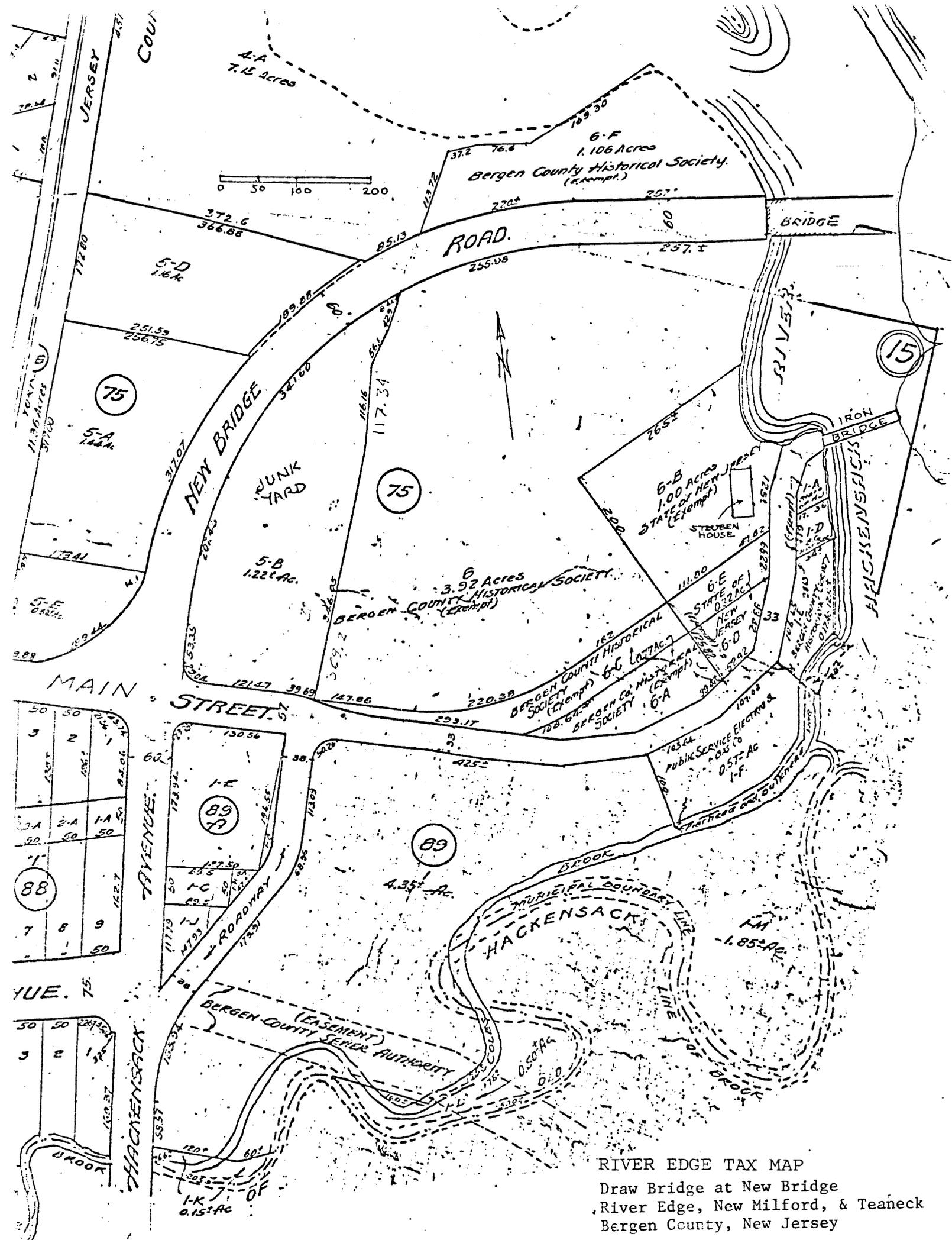
BOUNDARY DESCRIPTION: The beginning point is 75'-0" westerly from the center of the span at a point where the centerline of the span would intersect, thence southerly and easterly along an arc with a 75'-0" radius from the center of the span, crossing first the paved road belonging to the Borough of River Edge and into the NE corner of Lot 1-A, Block 75 (Borough of River Edge tax map), belonging to the State of New Jersey. Crossing the Borough of River Edge side of the Hackensack River to the mid-point where it comes under the jurisdiction of the Township of Teaneck, thence in an easterly and northerly direction along the arc to the edge of Brett Park and the easterly abutments of the bridge and crossing over the paved approach of New Bridge Road owned by the County of Bergen. The centerline of this road is the division line between Teaneck and the Borough of New Milford. Thence in a northerly and westerly direction along the arc through the New Milford area to the mid-point of the stream where it once again becomes the Borough of River Edge, thence westerly and southerly to the embankment and point of beginning. Containing .40 of an acre.

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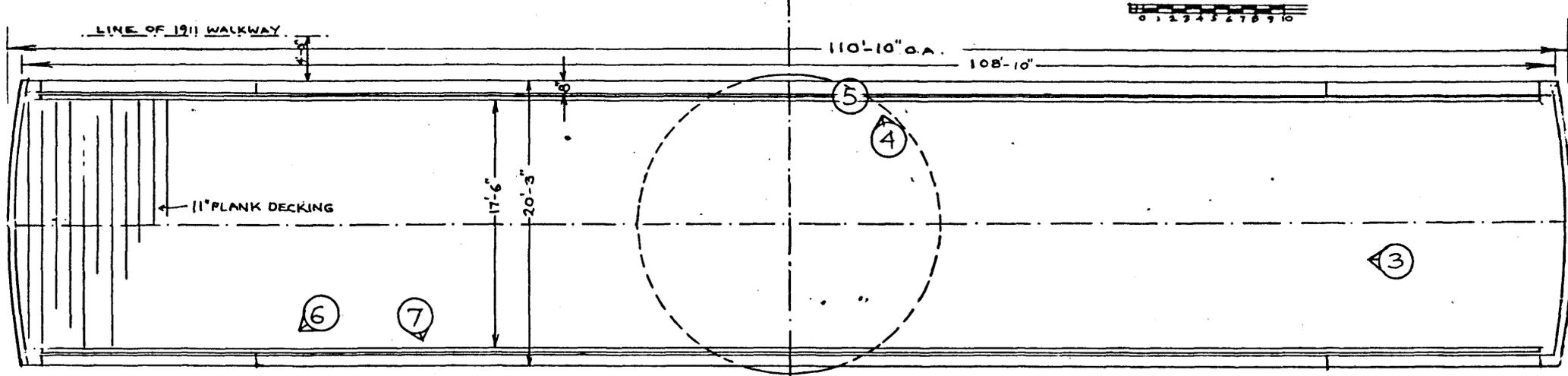
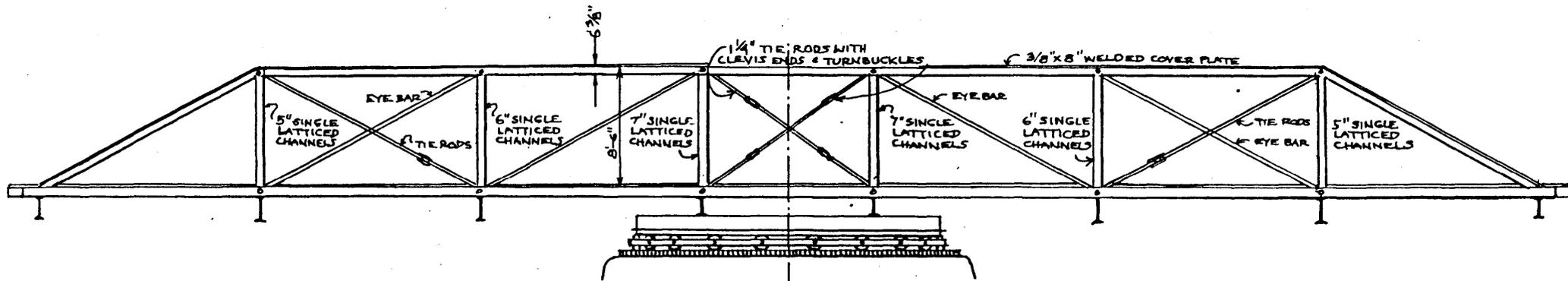
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BOUNDARY JUSTIFICATION: The circular boundary embraces the most important elements relating to the bridge and includes the complete bridge span, turntable base, east and west abutments including their wing walls, and the protective timber fender which runs north and south in the middle of the Hackensack River. The boundary excludes later additions to the ends such as a sidewalk and cement-capped curb walls and the W-shape barriers.



RIVER EDGE TAX MAP
 Draw Bridge at New Bridge
 River Edge, New Milford, & Teaneck
 Bergen County, New Jersey



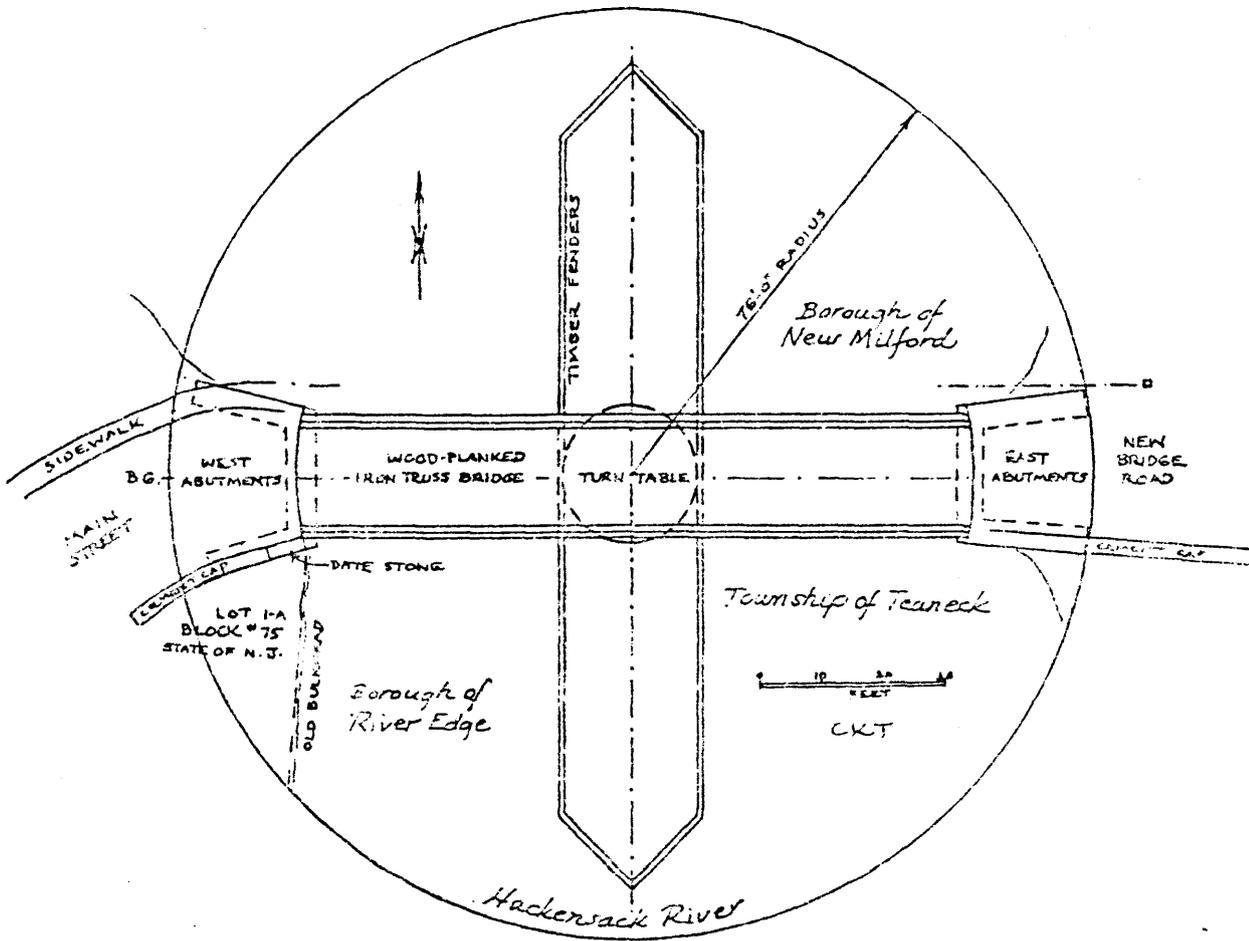
J. W. STAGG
 Contractor
 1888
 (substructure)

Sketch of New Bridge
 C.K. THOLL - 1987

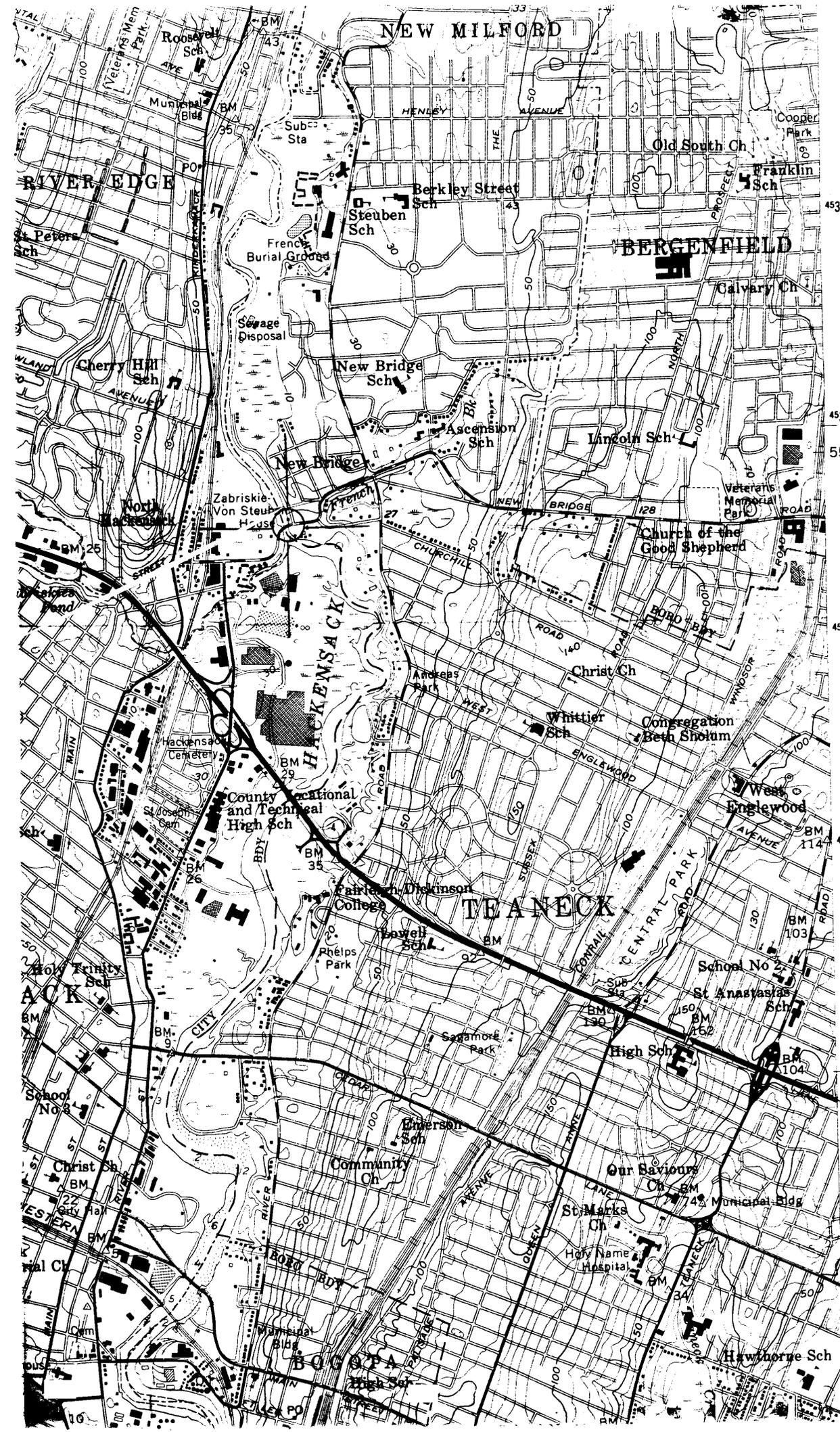
PHOENIX IRON CO
 PHILADA PA

2

Draw Bridge at New Bridge
 River Edge, New Milford, & Teaneck
 Bergen County, New Jersey



Draw Bridge at New Bridge
 River Edge, New Milford, & Teaneck
 Bergen County, New Jersey



17

4531

4530 Draw Bridge at New Bridge
 55' River Edge, New Mil
 + Teaneck
 Bergen County, NJ
 18/581680/4529460

4529

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2.8 MI. TO U.S. 1, 9.6, 46
 GEORGE WASHINGTON BRIDGE 3.6 MI.