NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700008 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BLOOMFIELD AVENUE OVER PARK AVENUE **FACILITY** BLOOMFIELD AVENUE

TOWNSHIP NEWARK CITY

TYPE DECK ARCH **DESIGN** ELLIPTICAL **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 70 ft **WIDTH** 60.4 ft

CONSTRUCTION DT 1904 **ALTERATION DT** 1951 **SOURCE** INSCRIPTION/PLANS

DESIGNER/PATENT ESSEX COUNTY PARK COMMISSION **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 4-lane divided road over a 2-lane park road set in Branch Brook Park, one of the original parks in the country's first county park system. The Essex County Park Commission, established in 1895, began the park development in 1896. Designed by nationally prominent landscape architects the Olmsted Brothers, the park is listed in the National Register. The bridge dates to the development of the middle division of the park where it is located.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible. Listed. Branch Brook Park. 01/12/1981. Contributing.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The elliptical reinforced concrete arch bridge supported on a concrete substructure was widened in kind to the north in 1951. Panelled parapets flank the concrete sidewalks. Raised concrete circular seals decorate the spandrel walls. A long and well-detailed example of its type, the span was constructed in the period of significance of Branch Brook Park. The span is one of 7 arch spans in the park, and it is a prominent and original park feature.

INFOR MATION

Bibliography:
Essex County Engineers Office.
ONJH National Register File: Essex County, Branch Brook Park, Newark, New Jersey.
Report of the Essex County Park Commission, 1901.

Physical Description: The elliptical reinforced concrete bridge spans 69'-8 1/4", and carries a 4-lane median divided county road and sidewalks over a park road with sidewalks. The bridge was widened in kind by 34' to the north in 1951. The panelled concrete parapets, the concrete median and sidewalks date to the widening. The original face of the spandrel walls has a raised concrete seal with the date of construction inscribed.

Historical and Technological Significance: The reinforced concrete deck arch bridge, constructed in 1904, is technologically significant because it is a relatively long and well-preserved concrete arch span, and it is historically distinguished because it is one of 4 arch bridges constructed between 1898 and 1930 as part of the development of the National Register-listed Branch Brook Historic District that consists of a Olmsted-designed park that is the centerpiece of the nation's first county park system. It is one of a total of seven significant arch spans located in Branch Brook Park (Criteria A and C).

The bridge was built for the Essex County Park Commission as part of the development of Branch Brook Park in Newark. The park is one of the original parks developed as part of the nation's first county park system. The Essex County Park Commission was formed in 1895, and they began plans for the development of two major parks, two reservations, and four smaller parks. Branch Brook Park was the most important and extensively developed of the original parks. The park was sectioned into three divisions. The southern division was the first section of the park to be developed, and construction began in 1896. John Bogart and N.F. Barrett, Landscape Architects and Engineers, provided the initial plans for the southern division. They were terminated in 1897 due to cut backs in funds.

In 1898, the Olmsted Brothers firm was hired, and they apparently revised Bogart & Barrett plans for the completion of the southern division and also developed plans for the middle and northern divisions. The Olmsted Brothers firm was established by Frederick Law Olmsted, Sr. (1822-1903) who is considered the founder of landscape architecture as a profession in this country. In 1857, he designed Central Park in New York, and he and/or his firm were responsible for many other noted landscape works in the country, such as the National Zoo in Washington, D.C., the United States Military Academy at West Point, the Capital Grounds in Washington, D.C., and the campuses at Harvard, Yale, Stanford universities and Amherst College, among others.

The southern division of Branch Brook Park was designed to be comparatively ornate. The northern division was designed to have a natural rustic style, and the middle division was designed to have an intermediate style transitioning between the other divisions. The span is located between the southern and middle divisions, and it was constructed to eliminate a grade crossing of a busy road with the park road, and to allow easy access between two park divisions. The bridge was designed to be simple in style in keeping to the less elaborate character of its surroundings.

Boundary Description and Justification: The bridge is located within a National Register-listed historic district. As a contributing resource to that district, both the span and its surroundings are evaluated as significant. For a detailed boundary description, refer to the National Register file at ONJH.

PHOTO: 707:38-39 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700011 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BAY AVENUE OVER THIRD RIVER **FACILITY** BAY AVENUE

TOWNSHIP BLOOMFIELD TOWNSHIP

TYPE STONE ARCH **DESIGN** BARREL **MATERIAL** Stone

 # SPANS 2 **LENGTH** 41 ft **WIDTH** 37.5 ft

CONSTRUCTION DT 1875ca **ALTERATION DT** 1931 **SOURCE** STYLE (PLANS)

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road with a turn-lane and sidewalks over a small stream adjacent to a town park and located between an area of post-WW II commercial structures and a neighborhood of single-family homes dating from the 1920s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 2-span stone barrel arch bridge of coursed ashlar and finished with ringstones was widened on the upstream side with a reinforced concrete slab in 1931. A metal railing flanks the sidewalk at the downstream side, and a plain concrete parapet dating to the 1931 widening flanks the upstream sidewalk. As well, concrete scour protection has been added. One of over 7 stone arch bridges in the county, the span is not distinguished because its visual integrity has been compromised by alterations.

INFOR MATION

PHOTO: 705:4-5;423:41-42 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700012 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BLOOMFIELD AVENUE OVER PECKMAN RIVER **FACILITY** BLOOMFIELD AVENUE

TOWNSHIP VERONA TOWNSHIP

TYPE STONE ARCH **DESIGN** BARREL **MATERIAL** Stone

 # SPANS 2 **LENGTH** 31 ft **WIDTH** 55 ft

CONSTRUCTION DT 1876 **ALTERATION DT** 1900, 1945 **SOURCE** CO. RECORDS/PLANS

DESIGNER/PATENT UNKNOWN **BUILDER** PHILIP H. HARRISON

SETTING / CONTEXT The bridge carries a 4-lane collector road and sidewalks over a small stream in a town center adjacent to a county park. The commercial buildings in the area date from the 1890s to the present. Verona Park, now part of the Essex County Park system, was the center of activity for a thriving resort town in the mid 1800s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 2-span stone barrel arch bridge is of coursed ashlar and finished with ringstones. It was widened in 1900. In 1945 a freshet damaged the downstream side, and it was repaired and widened with encased stringers supported on concrete abutment extensions. A concrete balustrade was placed at one side and the original masonry parapet remains at the other. One of over 7 stone arch spans in the county, the bridge is not distinguished because of its loss of integrity.

INFOR MATION

PHOTO: 702:40-43 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700013 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED CENTRE STREET (CR 648) OVER THIRD RIVER **FACILITY** CENTRE STREET

TOWNSHIP NUTLEY TOWNSHIP

TYPE BRICK ARCH **DESIGN** ELLIPTICAL **MATERIAL** Brick

 # SPANS 1 **LENGTH** 40 ft **WIDTH** 65 ft

CONSTRUCTION DT 1875ca **ALTERATION DT** 1929, 1965 **SOURCE** STYLE (PLANS)

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a shallow stream adjacent to a county park and a residential area dating from the 1910s to the 1920s. Yanticaw Park, to the north of the bridge, was designed by the Olmsted firm.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The brick deck arch bridge with ashlar spandrel walls springs from ashlar subabutments. In 1929 reinforced concrete wingwalls were added, and the span was widened at the south to accommodate a concrete sidewalk. In 1965 the north spandrel wall failed and was repaired with a concrete backup wall. Scored concrete facing was added to the parapets. The span predates the Olmsted park, and its numerous alterations and condition of the brick arch mar its historical and technological significance.

INFOR MATION

PHOTO: 706:36-37,423:43-4 (04/92) REVISED BY (DATE): QUAD: Orange

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700017 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED FRANKLIN AVENUE OVER SECOND RIVER **FACILITY** FRANKLIN AVENUE

TOWNSHIP BELLEVILLE TOWNSHIP

TYPE SLAB **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 29 ft **WIDTH** 44 ft

CONSTRUCTION DT 1939 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 4-lane collector road and sidewalks over a small channelized stream in a park-like setting adjacent to a restaurant built in the 1920s and a senior citizens center built in the 1960s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The reinforced concrete slab bridge is supported on a concrete substructure that is part of a concrete flume bordering the stream. Standard design concrete balustrades flank the concrete sidewalks. The short span is an example of a common type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 706:23-24 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700021 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0
NAME & FEATURE INTERSECTED HIGH STREET OVER SECOND RIVER **FACILITY** HIGH STREET
TOWNSHIP ORANGE CITY
TYPE STRINGER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Wrought Iron
 # SPANS 1 **LENGTH** 22 ft **WIDTH** 64 ft

CONSTRUCTION DT 1887 **ALTERATION DT** 1975 **SOURCE** FRHLD MINUTES(PLANS)
DESIGNER/PATENT J. OWENS, CO. ENGINEER **BUILDER** ALBERT SMITH,E.CODDINGTON

SETTING / CONTEXT The bridge carries a 2-lane city street over a small stream in a mixed-use urban community of altered multi-story commercial and residential buildings dating to the early 1900s. The Public Service Company of NJ's Orange electric sub station is located at the south east corner. The original brick building was constructed in 1900ca, and additions at the site date through the 1960s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Not Individually Eligible.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The short rolled stringer and brick jack arch bridge supported on ashlar abutments has metal railings flanking the sidewalks. Records state that the stringers are iron. In 1975 a shallow rolled stringer was welded to the bottom flange of 4 stringers. The bridge is a common type from the 1880s through the 1910s, and it is not technologically or historically distinguished. 0700088 and 0700065 are significant examples of the type, and each is located within a historic district.

INFOR MATION

Bibliography:
Essex County Engineers Office, (file 7-A-8A)
Essex County Board of Chosen Freeholders Minutes, 1886-1887.

Physical Description: The single span stringer with brick jack arch bridge is supported on cut stone masonry abutments that are continuous with concrete retaining walls along the stream channel. The Freeholders Minutes state that the span is to be built with iron stringers. The bridge spans 22', and it measures 39.5' wide curb-to-curb and 64' wide out-to-out. The bridge carries 2 sidewalks and it is flanked by metal picket railings. In 1975 the fascia and 1st interior stringers were strengthened at both sides of the bridge. W6 x 16 beams were added under the existing interior stringers and tie rods were welded to the fascia stringers. No plans were located.

Historical and Technological Significance: The 1887 stringer and brick jack arch bridge, reportedly built with iron stringers, is an example of a bridge type that was common for short spans in north eastern New Jersey in the late 1800s. In the 1890s the bridge type continued to be constructed but steel beams were used in place of iron. By 1910, with the development of the concrete deck, brick jack arch decks were no longer being used. The Essex County Freeholders Minutes for the year 1886-1887 indicates the masonry construction was performed by E. J. Coddington, and the iron work was performed by Albert Smith, both being local contractors. The span is one of only two known extant stringer bridges built with iron stringers that are documented as such in the county, and it is the better preserved example. It is thus significant as a rare and early example of what was once a common bridge type (Criterion C).

Boundary Description and Justification: It is the bridge and not its setting that are evaluated as significant. Therefore, the boundary is limited to the span (substructure and superstructure) itself.

PHOTO: 703:6-8 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700025 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED LYONS AVENUE OVER ELIZABETH RIVER **FACILITY** LYONS AVENUE

TOWNSHIP IRVINGTON TOWNSHIP

TYPE SLAB **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 30 ft **WIDTH** 48 ft

CONSTRUCTION DT 1940 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT C. COLWELL, COUNTY ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road with sidewalks over a low-flow stream carried in a concrete channel. The area is mixed-use with commercial buildings and single-family homes dating to the early 1900s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 1940 reinforced concrete slab bridge supported on concrete abutments that run continuous with the stream channel walls, has a pier supporting only part of the width of the bridge. Panelled parapets flank the concrete sidewalks. The short span is a late example of a common type and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 704:4-5 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700027 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED MILLBURN AVENUE OVER WEST BRANCH RAHWAY RIVER **FACILITY** MILLBURN AVENUE

TOWNSHIP MILLBURN TOWNSHIP

TYPE STONE ARCH **DESIGN** ELLIPTICAL **MATERIAL** Stone

 # SPANS 4 **LENGTH** 69 ft **WIDTH** 50 ft

CONSTRUCTION DT 1869 **ALTERATION DT** 1975 **SOURCE** COUNTY RECORDS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 4-lane one-way collector road and sidewalks over a minor stream in the center of town adjacent to a town park. The span is located in a commercial area dating from the turn-of-the century to the 1920s.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 4-span masonry deck arch bridge has ashlar parapets with granite capping stones. The 2-easternmost spans have been widened by 5' at the north side of the bridge to accommodate a cantilevered slab extension of the sidewalk. Gunite was applied to the intrados in 1975. An example of an early bridge type that has undergone only minor alterations, the span retains much of its original fabric, and it is a significant local example of the type.

INFOR MATION

Bibliography:
Essex County Engineers Office. Beginnings 1700-1800 The Colonial History and Architecture of Millburn, New Jersey.
Essex County Board of Chosen Freeholders Minutes.

Physical Description: The 4-span stone arch bridge is constructed of coursed ashlar masonry. Spanning 69' and measuring 50' wide, the bridge carries a 4- lane road flanked by concrete sidewalks and ashlar parapets with granite cap stones. The two easternmost spans were widened by 5' at the north side of the bridge to accommodate a cantilevered extension of the sidewalk. The modification is not intrusive. This was done to provide access to the building at that corner. In 1975, gunite was applied to the inside of the arch intrados, and the span was repointed. No other alterations to the span were noted. Plans were not located.

Historical and Technological Significance: The 1869 span is significant because it is the longest multi-span and one of the oldest stone arch bridge in the county, and it retains much of its original styling (Criterion C). The coursed ashlar stonework is typical of the 1868-1880 period in Essex County. Of the seven stone arch bridges identified in county as having been built between 1868 and ca. 1875, two are located in National Register-listed Branch Brook Park in Newark and are evaluated as contributing resources (0700068, 0700036), and the other four are not as complete as this example.

Located in the town center of Millburn, most of the buildings in the immediate area date to the late 1800s and early 1900s, and therefore its historic context has not been compromised. Because of the alterations to most of those buildings, however, the area does not appear to have the architectural integrity to be evaluated as a potential historic district. Historically, a span has crossed this location since before the Revolution. During the Revolution, the bridge at this crossing, named the Egbeson's Bridge, was a strategic site during the 1780 Battle of Springfield.

Boundary Description and Justification: Since the bridge is evaluated as individually distinguished, the significant boundary includes both the span itself and the slab addition added in 1955. It does not include the surrounding buildings, most of which are altered.

PHOTO: 702:23-25;1908:20-23 (04/92 JPH (5/9 REVISED BY (DATE): QUAD: Roselle

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700028 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED NORTHFIELD AVENUE OVER WEST BRANCH RAHWAY RIVER **FACILITY** NORTHFIELD AVENUE

TOWNSHIP WEST ORANGE TOWNSHIP

TYPE T BEAM **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 32 ft **WIDTH** 70 ft

CONSTRUCTION DT 1938 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 4-lane median-divided collector road and sidewalks over a small stream adjacent to the South Mountain Arena and Turtle Back Zoo. The area is post-WW II commercial businesses to one side of the bridge and residential to the other. The stream feeds into the Orange Reservoir just south of the bridge.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The reinforced concrete T-beam bridge supported on concrete abutments is on a slight skew. Concrete sidewalks are flanked by standard design concrete balustrades. A chain-link fence was attached to the outside face of the deteriorated balustrades. The span is a representative example of a common bridge type and is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 703:43-44 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700034 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED NORTHFIELD ROAD OVER CANOE BROOK **FACILITY** NORTHFIELD ROAD

TOWNSHIP LIVINGSTON TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 34 ft **WIDTH** 71.5 ft

CONSTRUCTION DT 1923 **ALTERATION DT** 1937 **SOURCE** NJDOT/PLANS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 4-lane median-divided collector road and sidewalks over a small stream flowing in a concrete channel. The area is commercial, and structures date from the 1920s to the present.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The encased stringer bridge supported on concrete abutments that are continuous with the concrete walls of the stream channel, has standard design concrete balustrades bordering concrete sidewalks. In 1937 the span was widened by 10' to the south and by 40' to the north with encased stringers. One of over 22 pre-WW II stringer bridges in the county, the span is an extensively altered example of its type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:10-12 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700035 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED UNION AVENUE (CR 647) OVER SECOND RIVER **FACILITY** UNION AVENUE (CR 647)

TOWNSHIP BELLEVILLE TOWSHIP

TYPE DECK ARCH **DESIGN** ELLIPTICAL **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 49 ft **WIDTH** 40 ft

CONSTRUCTION DT 1918 **ALTERATION DT** **SOURCE** PLANS/COUNTY RECORDS

DESIGNER/PATENT F. REIMER, COUNTY ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane county route and sidewalks over a minor stream through the extension of Branch Brook Park in Belleville. The area is composed of commercial and residential buildings dating from the 1910s to the 1920s. The park extension is a linear park bordering the Second River, and it was acquired in the mid-1920's. The original portion of Branch Brook Park was developed in 1896 as part of the nation's first county park system.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible. Listed. Branch Brook Park. 01/12/1981. Contributing.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The reinforced concrete deck arch bridge supported on a concrete substructure has standard-design concrete balustrades. One of over 9 concrete deck arch bridges in the county, the span is a representative example of its type, but it is located in a National Register-listed district. A major element in the park design, it is a contributing resource that helps establish the character of the area. It is one of 7 bridges in the park.

INFOR MATION

Bibliography:
Essex County Parks Department (Plans)., ONJH National Register Files: Essex County, Branch Brook Park, Newark, New Jersey. The Running Brooks and Other Sketches of Early Newark, by Edward S. Rankin, C.E., The Unionist-Gazette, Somerville, NJ, 1930.

Physical Description: The elliptical reinforced concrete arch bridge carries a 2-lane road over a small river in a county park. The bridge spans 49' and measures 40' curb-to-curb. The arch has an 11' rise. Concrete sidewalks are flanked by standard-design concrete balustrades. The span appears unaltered.

Historical and Technological Significance: The 1918 reinforced concrete arch bridge is a representative example of its type, and individually it is not distinguished. However, it is located within the national Register-listed Branch Brook Park and it is a major element in the park design, and it is a contributing resource that helps establish the character of the area. It is one of 7 significant arch bridges in the park. (Criterion C).

Branch Brook Park is one of the original parks developed as part of the nation's first county park system. The Essex County Park Commission was formed in 1895, and they began plans for the development of two major parks, two reservations and four smaller parks. Branch Brook Park was the most important and extensively developed of the original parks. The park was sectioned into three divisions, the southern, middle and northern divisions, and John Bogart and N.F. Barrett, Landscape Architects and Engineers, provided the initial plans for the southern division of the park. They were terminated in 1897 due to cut backs in funds. In 1898, the Olmsted Brothers firm was hired, and they designed general plans for the completion of the southern division and new plans for the other divisions. The Olmsted Brothers firm was established by Frederick Law Olmsted, Sr. who is considered the founder of landscape architecture as a profession in this country. In 1857, he designed Central Park in New York, and he is responsible for many other noted landscape works in the country, such as the National Zoo in Washington, D.C., the United States Military Academy at West Point, the Capital Grounds in Washington, D.C., and the campuses of Harvard, Yale, and Stanford universities and Amherst College, among others.

In the mid-1920s the land along the Second River between Newark and Belleville occupied by Hendricks Copper Mills and which included this span was acquired by the Essex County Park Commission in order to extend Branch Brook Park. In 1927 Caroline Bamberger-Fuld donated over 2000 Japanese Cherry Blossom trees to the Essex County Park Commission, and the trees were planted in the park extension along the Second River. The Essex County Park Commission has added to the collection through the years and it is now the largest display and variety of such trees in the United States attracting visitors from all over the country during the spring season.

Boundary Description and Justification: The bridge is located within a National Register-listed historic district. As a contributing resource to that district, both the span and its surroundings are evaluated as significant. For a detailed boundary description, refer to the National Register file at ONJH.

PHOTO: 706:27-28 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700036 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 6.0

NAME & FEATURE INTERSECTED WASHINGTON AVENUE OVER SECOND RIVER **FACILITY** WASHINGTON AVENUE (NJ 7, CR 667)

TOWNSHIP BELLEVILLE TOWNSHIP

TYPE STONE ARCH **DESIGN** BARREL **MATERIAL** Stone

 # SPANS 3 **LENGTH** 73 ft **WIDTH** 59.7 ft

CONSTRUCTION DT 1868-69 **ALTERATION DT** **SOURCE** PLAQUE/CO. RECORDS

DESIGNER/PATENT UNKNOWN **BUILDER** ADAMS & PARSONS

SETTING / CONTEXT The bridge carries a 4-lane county route and sidewalks over a small stream at the terminus of the extension of Branch Brook Park in Belleville, listed on the National Register. The area opposite the park is the edge of the commercial center of Belleville. A ca. 1910 brick building that was a Public Service Electric power house is located at the south approach of the bridge.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible. Listed. Branch Brook Park. 01/12/1981. Contributing.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The coursed ashlar 3-span stone arch bridge is detailed with voussoirs. The corresponding parapets have granite cap stones and metal railings. Undermining at the foundations has been repaired with concrete. The bridge is significant because it is a well-preserved and early example of a multi-span stone arch bridge. It predates the establishment of Branch Brook Park, but it contributes to its picturesque character. The span is individually significant and it contributes to the historic district.

INFORMATION

Bibliography:
Essex County Engineers Office.
Essex County Board of Chosen Freeholders Minutes.
ONJH National Register File: Essex County, Branch Brook Park, Newark, New Jersey.

Physical Description: The 3-span stone arch bridge is built of rusticated coursed ashlar masonry and finished voussoirs and a keystone. Spanning 73' and measuring almost 60' wide, the bridge carries a 4-lane road flanked by concrete sidewalks and ashlar parapets with granite cap stones. A stone at the center of the east parapet is inscribed with the date, the names of the contractors and the names of the county freeholders. County records indicate that the bridge originally constructed in 1868 was shorter, but it caused flooding problems and damage to a local business. The bridge was lengthened in 1869 to alleviate this problem. A concrete invert slab was added, and the masonry was repointed at an unknown date. No other alterations to the span were noted. Plans were not located.

Historical and Technological Significance: The 1868-1869 3-span stone arch bridge is technologically significant because it is the earliest example of a multi span stone arch bridge in the county. Additionally, it is located in the extension division of Branch Brook Park, a National Register-listed historic district. The bridge contributes to the historic character of the park. It is one of seven significant arch spans in Branch Brook Park (Criteria A and C).

The bridge was constructed in 1868 by N.B. Adams and V.M. Parsons, local contractors, and it predates the park. The span is located at the terminus of the extension division of Branch Brook Park, one of the original parks established by the Essex County Park Commission as part of the development of the nation's first county park system. The Essex County Park Commission was formed in 1895, and they began plans for the development of two major parks, two reservations and four smaller parks. Branch Brook Park was the most important and extensively developed of the original parks. The park was divided into three divisions, the southern division was the first section of the park to be developed and construction began in 1896. John Bogart and N.F. Barrett, Landscape Architects and Engineers, provided the initial plans for the southern division of the park. They were terminated in 1897 due to cut backs in funds. In 1898, the Olmsted Brothers firm was hired, and they designed general plans for the completion of the southern division and new plans for the middle and northern divisions. The Olmsted Brothers firm was established by Frederick Law Olmsted, Sr. who is considered the founder of landscape architecture as a profession in this country. In 1857, he designed Central Park in New York, and he is responsible for many other noted landscape works in the country, such as the National Zoo in Washington, D.C., the United States Military Academy at West Point, the Capital Grounds in Washington, D.C., and the campuses of Harvard, Yale, Amherst, and Stanford.

In the mid-1920s the land along the Second River between Newark and Belleville occupied by Hendricks Copper Mills, and which included this bridge, was acquired by the Essex County Park Commission in order to extend Branch Brook Park. In 1927 Caroline Bamberger-Fuld donated over 2000 Japanese Cherry Blossom trees to the Essex County Park Commission to be planted in Branch Brook Park, and the trees were planted in the park extension along the Second River. The Essex County Park Commission has added to the collection through the years and it is now the largest display and variety of such trees in the United States attracting visitors from all over the country during the spring blooming season.

Boundary Description & Justification: The bridge is located on the northeast boundary of the Branch Brook Park Historic District. It appears from the verbal boundary description that the entire span (both elevations) is within the nominated acreage, but only the land adjacent to the west elevation is included. Thus the land adjacent to the east elevation is not evaluated as significant or contributing. For a more complete description of the district's boundaries, refer to the National Register files at ONJH.

PHOTO: 706:32-33 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700037 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0
NAME & FEATURE INTERSECTED WASHINGTON STREET OVER SECOND RIVER **FACILITY** WASHINGTON STREET
TOWNSHIP ORANGE CITY
TYPE MULTI GIRDER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Steel
 # SPANS 1 **LENGTH** 28 ft **WIDTH** 36 ft

CONSTRUCTION DT 1900ca **ALTERATION DT** 1940ca **SOURCE** STYLE
DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane city street with sidewalks over a minor stream in an urban neighborhood of apartments constructed in the 1960s and houses dating to the 1920s. A brick storm sewer empties into the stream at one side of the bridge. The west elevation is hidden by a covered culvert. A building once stood where the channelized stream is. It is now an undeveloped lot.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Not Individually Eligible.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The built-up multi girder and brick jack arch bridge is supported on ashlar abutments. A metal railing flanks the east sidewalk. The west elevation is hidden by a culvert that connects this span to 0700075 (500' to the west). Two of the jack arch bays have been replaced with concrete slabs. A brick storm sewer that has been strengthened with gunite is located through a wingwall. The altered span is not well preserved, and it is neither historically nor technologically distinguished.

INFOR MATION

Bibliography:
Essex County Engineers Office.

Physical Description: The single span multi-girder with brick jack arches bridge is supported on an ashlar substructure. The riveted girders are composed of two pairs of angles and a web plate. The bridge measures]' in length and carries a 36' wide road and two 12' sidewalks. Concrete encased utilities have been added and two of the jack arch bays have been replaced with concrete slabs. The original decorative metal railing remains at the east fascia. The west fascia is not visible because the span is adjacent to a covered culvert that connects with span 0700075. The stream channel is lined by masonry walls, and a small brick arch storm sewer is located through the southeast wingwall.

Historical and Technological Significance: The multi-girder with brick jack arch bridge is an altered example of what was a common bridge type in northern New Jersey from the late 1800s through about 1910. After 1910, with the development of the reinforced concrete deck, the brick jack arch deck became obsolete. Several examples of rolled beams with brick jack arches are extant in the county, but this span has built up beams. This example has been altered. Two of the bays have been filled with concrete, and the west elevation in hidden by a covered culvert placed ca. 1940.

A better example of the brick jack arch design is 0700063 built in 1898.

PHOTO: 703:9-10 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.
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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700039 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED VALLEY STREET OVER ELIZABETH RIVER **FACILITY** VALLEY STREET

TOWNSHIP NEWARK CITY

TYPE CULVERT **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 2 **LENGTH** 25 ft **WIDTH** 40 ft

CONSTRUCTION DT 1920ca **ALTERATION DT** **SOURCE** COUNTY RECORDS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane city street and sidewalks over a small stream in an urban residential neighborhood of apartment buildings and 2-family homes dating from the 1920s to the 1950s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 2-cell concrete culvert retains the original metal pipe railing along the east sidewalk. The west side of the span is not visible from Valley Road. According to county records, at the west side, the 2 cells split into 2 separate pipes and continue underground. The culvert, constructed as part of the flood control plan of the 1920s, is a common type. This span is not technologically innovative or historically distinguished.

INFOR MATION

PHOTO: 703:13-15 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700040 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED YALE AVENUE OVER ELIZABETH RIVER **FACILITY** YALE AVENUE

TOWNSHIP IRVINGTON TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 32 ft **WIDTH** 36.5 ft

CONSTRUCTION DT 1927 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** NORTHERN CONSTRUCTION COMPA

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small watercourse carried in a concrete channel. The area is residential with single-family homes constructed from the 1910s to the 1940s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 32' span encased stringer bridge supported on concrete abutments has standard design concrete balustrades. The short span is an example of a common type in the state. One of over 22 stringer bridges in the county from the pre-World War II era, the span is a representative example of a common bridge type and is not technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 704:6-7 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700044 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED ORTON ROAD OVER PINE BROOK **FACILITY** ORTON ROAD

TOWNSHIP WEST CALDWELL TOWNSHIP

TYPE STONE ARCH **DESIGN** BARREL **MATERIAL** Stone

 # SPANS 3 **LENGTH** 42 ft **WIDTH** 20.7 ft

CONSTRUCTION DT 1869 **ALTERATION DT** 1959, 1991 **SOURCE** COUNTY RECORDS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane residential street and one sidewalk over a minor stream in a neighborhood of predominantly post-WW II era single family houses. Several early houses are contiguous to the bridge. The Samuel Orton Harrison House, built in 1793ca, is listed on the National Register 6/30/80. A house built in 1835ca is located across the street from the Harrison House. A 1900ca house is located at the other side of the span.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 3-span stone masonry arch bridge supported on an ashlar substructure has rubble coursed parapets and spandrel walls. A timber sidewalk flanked by a timber railing was added at the upstream side in 1959. In 1991 the intrados were lined with concrete and the stonework was repointed. An invert slab was added under the span, and it forms a small spillway. The bridge has been altered, and it is a technologically undistinguished example of a locally well-represented type.

INFOR MATION

PHOTO: 701:6-7 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700045 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED OAKVIEW AVENUE OVER EAST BRANCH RAHWAY RIVER **FACILITY** OAKVIEW AVENUE

TOWNSHIP MAPLEWOOD TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (CONCRETE) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 34 ft **WIDTH** 35.7 ft

CONSTRUCTION DT 1910ca **ALTERATION DT** 1991 **SOURCE** STYLE

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small stream bordered by rubble stone walls. The bridge is located adjacent to a town park.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 01/10/92

SUMMARY The encased stringer and concrete jack arch bridge is supported on concrete abutments. In 1991 a new concrete deck was placed at the end bays, the fascia stringers were encased in concrete, and concrete parapets were added. The tie rods are visible at the deck underside. An altered example of a common type, the bridge is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 703:39-40 (04/92) REVISED BY (DATE): QUAD: Roselle

A. G. Lichtenstein & Associates, Inc. performed initial survery.
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700046 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED PIERSON ROAD OVER EAST BRANCH RAHWAY RIVER **FACILITY** PIERSON ROAD

TOWNSHIP MAPLEWOOD TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 32 ft **WIDTH** 30 ft

CONSTRUCTION DT 1916 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small branch of a river adjacent to the Maplewood Country Club. A nursery located to the northeast of the bridge occupies the buildings of the former Piersons Mill constructed in 1831.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 03/12/01

SUMMARY The 32'-long encased stringer bridge supported on concrete abutments has custom concrete parapets with diamond shaped cut-outs and diamond panels on the posts. The parapet design is common for the period in the county (see 0701565, 0701065) and its presence does not singularly make any bridge individually significant. The superstructure itself is a representative example of the most common pre-WW II bridge type in the state. There are over 15 pre-1930 examples in Essex County alone. The bridge post-dates the adjacent mill structures, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 703:32-33 (04/92) REVISED BY (DATE): QUAD: Roselle

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700047 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED OAKLAND ROAD OVER EAST BRANCH RAHWAY RIVER **FACILITY** OAKLAND ROAD

TOWNSHIP MAPLEWOOD TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 45 ft **WIDTH** 26.6 ft

CONSTRUCTION DT 1900ca **ALTERATION DT** 1992 **SOURCE** STYLE

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane connector road with sidewalks over a small branch of a river bordered by masonry walls. A stone spillway is located about 20' downstream of the bridge. The area is predominantly residential dating from the 1910s to the 1920s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The slightly skewed stringer and brick jack arch bridge supported on ashlar abutments carries the original decorative metal railings flanking the concrete sidewalks. In 1992 two end jack arch bays collapsed and were repaired with concrete-filled metal deck forms. One of over 8 brick jack arch spans in the county, the undocumented bridge has been altered, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 703:36-38 (04/92) REVISED BY (DATE): QUAD: Roselle

A. G. Lichtenstein & Associates, Inc. performed initial survery.
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700053 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED GLEN AVENUE OVER WEST BRANCH RAHWAY RIVER **FACILITY** GLEN AVENUE

TOWNSHIP MILLBURN TOWNSHIP

TYPE DECK GIRDER **DESIGN** JACK ARCH (CONCRETE) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 47 ft **WIDTH** 34 ft

CONSTRUCTION DT 1908 **ALTERATION DT** **SOURCE** COUNTY RECORDS

DESIGNER/PATENT J. OWENS, CO. ENGINEER **BUILDER** GOELLER IRON WORKS

SETTING / CONTEXT The bridge carries a 2-lane road and sidewalks over a small branch of a river in a wooded residential area of single-family homes dating from the 1910s to the 1920s. The road is closed to vehicular traffic at the bridge.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The riveted deck girder with floorbeams bridge supported on concrete abutments has concrete jack arches spanning between the floorbeams. Pipe railings flank the concrete sidewalks. The bridge is closed to traffic due to its deteriorated condition. A representative example of the over ten stringer with jack arch bridges in the county, the span is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:19-20 (04/92) REVISED BY (DATE): QUAD: Roselle

A. G. Lichtenstein & Associates, Inc. performed initial survery.
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700054 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED RIDGEWOOD ROAD OVER WEST BRANCH RAHWAY RIVER **FACILITY** RIDGEWOOD ROAD

TOWNSHIP MILLBURN TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 46 ft **WIDTH** 30.2 ft

CONSTRUCTION DT 1929 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small branch of a river bordered by masonry walls and is set at the southernmost terminus of a town park. The area is residential with single-family homes dating from the 1900s to the 1950s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The single-span encased stringer bridge supported on concrete abutments has standard-design concrete balustrades with nicely detailed end posts flanking the concrete sidewalks. One of over 22 pre-WW II stringer bridges in the county, the span is a representative example of the most common pre-World War II bridge type and design in the state, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:26-27 (04/92) REVISED BY (DATE): QUAD: Roselle

A. G. Lichtenstein & Associates, Inc. performed initial survery.
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700055 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED WEST STREET OVER SECOND RIVER **FACILITY** WEST STREET

TOWNSHIP BLOOMFIELD TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 48 ft **WIDTH** 30.2 ft

CONSTRUCTION DT 1930 **ALTERATION DT** **SOURCE** NJDOT

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a shallow stream bordered by masonry retaining walls in an area developed in the 1900s and consisting of single and 2-family homes and light industrial buildings.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The encased stringer bridge supported on concrete abutments has standard design concrete balustrades flanking the concrete sidewalks. The abutments are contiguous to a masonry retaining wall along the stream edges. One of over 22 pre-WW II stringer bridges in the county, the span is an example of a common bridge type in the state and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 706:16-17 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700057 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BRIGHTON AVENUE OVER SECOND RIVER **FACILITY** BRIGHTON AVENUE

TOWNSHIP EAST ORANGE CITY

TYPE BRICK ARCH **DESIGN** ELLIPTICAL **MATERIAL** Brick

 # SPANS 1 **LENGTH** 24 ft **WIDTH** 36 ft

CONSTRUCTION DT 1889 **ALTERATION DT** **SOURCE** COUNTY RECORDS

DESIGNER/PATENT J. OWENS, COUNTY ENGINEER **BUILDER** E. J. CODDINGTON

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a minor stream in a residential area consisting predominantly of altered single-family homes dating from the 1890s to the 1920s. The residential area is bordered by commercial buildings dating from the 1920s to the 1970s. The bridge is one of four brick arch spans in the county. The bridge type is not uncommon in northern New Jersey.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The shallow rise brick deck arch bridge springs from an ashlar substructure, and it has ashlar spandrel walls. Metal picket railings flank slate-paved sidewalks. The underside of the arch is deformed in places. The span is not well-preserved, and more complete examples (0700077) of the type are represented in the county. Its size (24' span) and loss of structural integrity make it technologically undistinguished.

INFOR MATION

PHOTO: 706:12-13 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700059 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BERKELEY AVE OVER SECOND RIVER **FACILITY** BERKELEY AVENUE

TOWNSHIP BLOOMFIELD TOWNSHIP

TYPE THRU GIRDER **DESIGN** PARTIALLY ENCASED **MATERIAL** Steel

 # SPANS 2 **LENGTH** 107 ft **WIDTH** 28 ft

CONSTRUCTION DT 1922 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a shallow stream and the abandoned Morris Canal R-O-W in a residential area developed in the 1920s. A town park is contiguous to the bridge. The canal R-O-W was filled in the late-1920s, but it is listed in the National Register.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible. Historic District Status Unresolved.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 2-span thru girder bridge is supported on concrete abutments and steel pier bents. Metal railings flank the cantilevered concrete sidewalks. The floorbeams and stringers are encased. One of over 8 pre-WW II thru girder bridges in the county, the span is an altered example of a common type, and it is not technologically innovative. The span, constructed just prior to the abandonment of the Morris Canal, is not historically associated with the heyday of the canal era.

INFOR MATION

PHOTO: 706:18-20 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700060 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED MILL STREET OVER SECOND RIVER **FACILITY** MILL STREET

TOWNSHIP BELLEVILLE TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 40 ft **WIDTH** 30.2 ft

CONSTRUCTION DT 1942 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT C. COLWELL, COUNTY ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a shallow watercourse in a residential area that includes multi-level apartments and condominiums. The area was developed from the 1940s to the present.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 1942 encased stringer bridge supported on concrete abutments has standard design concrete balustrades with paneled posts flanking the concrete sidewalks. One of over 22 pre-1945 stringer bridges in the county, the span is an example of a common type in the state, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 706:21-22 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700063 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED HARRISON STREET OVER THIRD RIVER **FACILITY** HARRISON STREET

TOWNSHIP NUTLEY TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 39 ft **WIDTH** 30.4 ft

CONSTRUCTION DT 1898 **ALTERATION DT** **SOURCE** COUNTY RECORDS

DESIGNER/PATENT J. OWENS, CO. ENGINEER **BUILDER** E. B. HEDDON, F.W. SHRUMP

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small stream bordered by gabion retaining walls. The structures in the area are commercial and residential constructed from the 1920s to the 1950s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 7/9/90

SUMMARY The skewed stringer and brick jack arch bridge supported on ashlar abutments has metal picket railings flanking the concrete sidewalks. The abutments are continuos with gabion and concrete retaining walls that line the watercourse in this section. The most complete of the over 8 stringer and brick jack arch bridges in the county, the span is an example of a common local type from the 1880s to the early 1900s. It was evaluated by the SHPO as not technologically nor historically distinguished.

INFOR MATION

PHOTO: 707:5-7 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700065 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED VALLEY ROAD OVER TONEY'S BROOK **FACILITY** VALLEY ROAD

TOWNSHIP MONTCLAIR TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 23 ft **WIDTH** 95 ft

CONSTRUCTION DT 1899 **ALTERATION DT** **SOURCE** COUNTY RECORDS

DESIGNER/PATENT J. OWENS, CO. ENGINEER **BUILDER** E. B. HEDDON, J. YOST

SETTING / CONTEXT The bridge is flared to carry the intersection of two, 2-lane streets and sidewalks over a small brook, and it is located adjacent to a town park and the State Register-listed (NR pending) Erwin Park HD. The east side of Central Ave. is the district boundary, so the bridge is clearly excluded from the district. The area is an architecturally and historically significant mix of houses from 1880s Italianate through academic Colonial Revival houses.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible. Erwin Park Historic District (adjacent). Eligible 09/29/86. NJ Register Listed 09/29/86. Noncontributing.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The stringer and brick jack arch bridge supported on ashlar abutments is splayed to accommodate a road intersection. Metal picket railings flank a concrete sidewalk and a slate sidewalk. The bridge is a well-preserved example of a common type in the county from the 1885-1910, but it is not individually distinguished. It was not included in the Erwin Park HD which uses the east side of Central Ave. as its west boundary.

INFOR MATION

Bibliography:
Essex County Engineers Office.
Essex County Board of Chosen Freeholders Minutes 1899-1900.
NJ and National Registers of Historic Places as of December 31, 1988, by NJDEP

Physical Description: The single span steel stringer and brick jack arch bridge is supported on ashlar abutments. The bridge is flared to support the Y-intersection of Valley Road and Central Avenue, and the span carries 2 sidewalks flanked by metal picket railings. The bridge spans 23' and the flared width measures an average of 95'. Tie rods are visible at the deck underside. The railing at one side of the bridge is set in concrete that is not from the original construction. Concrete retaining walls support the stream channel to one side of the bridge. No plans were located.

Historical and Technological Significance: The steel stringer and brick jack arch bridge constructed in 1899 is technologically significant because it is a well-preserved example of its type. The span is historically significant because it abuts an historic district. The span was constructed during the period of significance and contributes to the historic character of the historic district's setting. The stringer and brick jack arch span is an example of a common bridge type in the county from the late 1800s through about 1910. After 1910, with the development of the reinforced concrete deck, the brick jack arch deck became obsolete. The span is flared and measures wider than most spans of its type. The Essex County Freeholders Minutes indicate the masonry work was performed by Jacob Yost and the steel work was performed by Eugene B. Heddon, both local NJ contractors.

The span abuts the Erwin Park Historic District (Montclair Multiple Resource Area) listed on the State Register 9/29/86, and it is a potential National Register district. It is an area of well-preserved architecturally significant single-family houses dating from 1870ca Italianate through academic Colonial Revival with picturesque Colonial Revival predominating. In the late 1800s, the railroad was constructed making this area easily accessible from New York City, and the development of Montclair was spurred and promoted by the railroad as a residential community for New York City businessmen. Most of the houses in the area are well-maintained and retain their turn-of-the century character.

PHOTO: 705:39-42 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700066 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED OAK PLACE AND FOREST STREET OVER TONEY'S BROOK **FACILITY** OAK PLACE & FOREST STREET

TOWNSHIP MONTCLAIR TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 49 ft **WIDTH** 182 ft

CONSTRUCTION DT 1908 **ALTERATION DT** 1990 **SOURCE** COUNTY RECORDS

DESIGNER/PATENT J. OWENS, CO. ENGINEER **BUILDER** DOVER BOILER WORKS

SETTING / CONTEXT The bridge carries a portion of a 4-way intersection of 2-lane streets and sidewalks over a small stream in a residential neighborhood developed in the 1920s. The bridge is skewed.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 6/6/91

SUMMARY The skewed stringer and brick jack arch bridge supported on ashlar abutments is flared with a steel thru girder at the long fascia. In 1990 two steel stringers were added adjacent to the deteriorated girder and many stringers were replaced. The span was built by Dover Boiler Works, a New Jersey firm active from 1901 through 1960. One of over 8 stringer and brick jack arch bridges in the county, the span has been altered, and it is not historically or technologically distinguished.

INFOR MATION

PHOTO: 705:43-44,1-3 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700068 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BRIDGE STREET OVER SECOND RIVER **FACILITY** BRIDGE STREET

TOWNSHIP BELLEVILLE TOWNSHIP

TYPE STONE ARCH **DESIGN** BARREL **MATERIAL** Stone

 # SPANS 1 **LENGTH** 33 ft **WIDTH** 30.5 ft

CONSTRUCTION DT 1867 **ALTERATION DT** **SOURCE** PLAQUE

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road over a small stream in the extension to Branch Brook Park in Belleville adjacent to a commercial and residential area with structures dating from the 1910s to the 1970s. Branch Brook Park is one of the original parks developed as part of the nation's first county park system. The Essex County Park Commission began development of the park in 1896. The extension of the park dates to the mid 1920s.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Individually Eligible. Listed. Branch Brook Park. 01/12/1981. Contributing.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 1867 coursed ashlar stone arch bridge with ringstones has corresponding parapets with replacement concrete caps. The stone has a vermiculated finish. The west parapet is damaged. The single-span bridge is a large and complete example of the early bridge type, and it is the oldest documented bridge in the county. Significant in its own right, it predates the National Register-listed park in which it is located, but it contributes to the historic character of the area.

INFOR MATION

Bibliography:
Essex County Engineers Office.
Essex County Board of Chosen Freeholders Minutes.
ONJH National Register File: Essex County, Branch Brook Park, Newark, New Jersey.

Physical Description: The single-span stone arch bridge is constructed of vermiculated coursed ashlar and finished with ringstones. Spanning 33' and measuring almost 30'-6" wide, the bridge carries a 2-lane road flanked by a concrete sidewalk and ashlar parapets with granite cap stones. A keystone on the east elevation is inscribed with the date, 1867, and the county freeholder minutes confirm the date of construction. The west parapet has missing stones at the north corner. No alterations to the span were noted. Plans were not located.

Historical and Technological Significance: The 1867 stone arch bridge is technologically significant because it is the earliest example of a stone arch bridge in the county, and it is well-preserved. Additionally, it is located in the extension division of Branch Brook Park. The park is listed in the National Register as a historic district, and the span is historically distinguished because it contributes to the historic character of the park. It is one of seven significant arch spans in Branch Brook Park (Criteria A and C).

Branch Brook Park is one of the original parks established as part of the development of the nation's first county park system. The Essex County Park Commission was formed in 1895, and they began plans for the development of two major parks, two reservations and four smaller parks. Branch Brook Park was the most important and extensively developed of the original parks. The park was divided into three divisions, the southern division was the first section of the park to be developed and construction began in 1896. John Bogart and N.F. Barrett, Landscape Architects and Engineers, provided the initial plans for the southern division of the park. They were terminated in 1897 due to cut backs in funds. In 1898, the Olmsted Brothers firm was hired, and they designed general plans for the completion of the southern division and new plans for the middle and northern divisions. The Olmsted Brothers firm was established by Frederick Law Olmsted, Sr. who is considered the founder of landscape architecture as a profession in this country. In 1857, he designed Central Park in New York, and he is responsible for many other noted landscape works in the country, such as the National Zoo in Washington, D.C., the United States Military Academy at West Point, the Capital Grounds in Washington, D.C., and the campuses of Harvard, Yale, and Stanford universities and Amherst College among others.

In the mid-1920s the land along the Second River between Newark and Belleville occupied by Hendricks Copper Mills including this span, was acquired by the Essex County Park Commission in order to extend Branch Brook Park. In 1927 Caroline Bamberger-Fuld donated over 2000 Japanese Cherry Blossom trees to the Essex County Park Commission to be planted in Branch Brook Park, and the trees were planted in the park extension along the Second River. The Essex County Park Commission has added to the collection through the years and it is now the largest display and variety of such trees in the United States attracting visitors from all over the country during the spring blooming season.

Boundary Description and Justification: The bridge is located within the Branch Brook Park Historic District. The area on all sides of the span is included in the nomination. For a detailed description of the exact boundaries of the district, refer to the nomination file at ONJH.

PHOTO: 706:29-31 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700071 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED FAIRFIELD AVENUE OVER KANE BROOK **FACILITY** FAIRFIELD AVENUE

TOWNSHIP WEST CALDWELL TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (CONCRETE) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 28 ft **WIDTH** 27.3 ft

CONSTRUCTION DT 1910ca **ALTERATION DT** **SOURCE** STYLE

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road over a small stream in an industrial park developed in the 1960s to 1970s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The stringer and concrete jack arch bridge supported on stone abutments from an earlier span has plain concrete parapets. The tie rods are visible at the deck underside. A reinforced concrete culvert pipe with headwall is adjacent to the bridge at the downstream side. The span is an example of a common type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 701:39-41 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700072 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED SPRINGFIELD AVENUE OVER ELIZABETH RIVER **FACILITY** SPRINGFIELD AVENUE

TOWNSHIP IRVINGTON TOWNSHIP

TYPE SLAB **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 23 ft **WIDTH** 59 ft

CONSTRUCTION DT 1941 **ALTERATION DT** **SOURCE** COUNTY RECORDS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 4-lane collector road and sidewalks over a small low-flow stream carried by a concrete channel with masonry retaining walls. The bridge is set in a commercial district of structures dating from the early 1900s to the 1950s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The reinforced concrete slab bridge supported on ashlar abutments from an earlier span has a standard design balustrade at the upstream side. The downstream side has been widened in kind to support a parking area, and the fascia is not visible. The span is an example of a common type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 703:16-17 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700073 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED OLD MILL ROAD OVER GREEN BROOK **FACILITY** OLD MILL ROAD

TOWNSHIP NORTH CALDWELL BOROUGH

TYPE BRICK ARCH **DESIGN** ELLIPTICAL **MATERIAL** Brick

 # SPANS 1 **LENGTH** 29 ft **WIDTH** 27.3 ft

CONSTRUCTION DT 1875 **ALTERATION DT** **SOURCE** COUNTY RECORDS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge spans over a minor watercourse and carries a 2-lane residential street that dead ends at the Green Brook Country Club golf course. The homes along the short street were constructed in the post-WW II era. A historical marker notes that several mills were in operation during the 1800s along Green Brook including Sindle's Grist and Saw Mill, "the lower mill," near Old Mill Rd. operating from late 1700s to 1900.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The brick deck arch bridge springs from a stone substructure and has rubble-coursed stone spandrel walls and parapets. The intrados has been gunited, and the parapets have been repointed in a non-historic manner. A gabion wall was added in front of the west stone wingwall. The altered span is one of 4 brick arches in the county, and it is neither technologically innovative nor historically distinguished based on its appearance and alterations. A more distinguished example is 0700077.

INFOR MATION

PHOTO: 701:42-44 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700074 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED CLEVELAND STREET OVER SECOND RIVER **FACILITY** CLEVELAND STREET

TOWNSHIP ORANGE CITY

TYPE STRINGER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 50 ft **WIDTH** 36 ft

CONSTRUCTION DT 1897 **ALTERATION DT** **SOURCE** FREEHOLDERS MINUTES

DESIGNER/PATENT J. OWENS, CO. ENGINEER **BUILDER** E. B. HEDDEN, F.W. SHRUMP

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small stream carried in a concrete channel through an urban residential area of altered houses dating from 1900 through 1930. The Public Service Corporation of NJ Orange Sub Station is located at the south west corner. The original brick building was constructed in 1910ca, and additions at the site date to the 1960s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The single-span stringer and brick jack arch bridge supported on ashlar abutments has metal picket railings bordering concrete sidewalks. The span is an example of a common type in the county built from the mid-1880s through the 1910s, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 1908:16-19 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700075 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED NORTH DAY STREET OVER SECOND RIVER **FACILITY** NORTH DAY STREET

TOWNSHIP ORANGE CITY

TYPE MULTI GIRDER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 24 ft **WIDTH** 36 ft

CONSTRUCTION DT 1900ca **ALTERATION DT** 1970ca **SOURCE** STYLE (STYLE)

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small low-flow stream carried by a concrete channel in an urban residential area of 2-family homes constructed in the 1910s and low-income apartments constructed in the 1960s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The built-up girder and brick jack arch bridge is supported on ashlar abutments that are continuous with the concrete retaining walls on the west and a concrete culvert on the east which connects it to 0700037. The original railings were replaced with chain link fences. One of over 8 brick jack arch spans in the county, the bridge is not well-preserved, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 703:11-12 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700076 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED MILL STREET & BRANCH BROOK PARK OVER SECOND RIVER **FACILITY** MILL STREET & BRANCH BROOK PARK

TOWNSHIP NEWARK CITY

TYPE DECK ARCH **DESIGN** ELLIPTICAL **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 69 ft **WIDTH** 58 ft

CONSTRUCTION DT 1930 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT A. BURTON COHEN, CONS. ENG. **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a minor stream carried in a concrete channel through a picturesque park. Branch Brook Park was established in 1895 and landscaping began in 1896. The bridge lies in the area known as the extension division, which was acquired and developed in the mid 1920s, in the midst of a cherry tree collection that attracts visitors countrywide in the spring.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Individually Eligible. Listed. Branch Brook Park Historic District. 01/12/1981. Contributing.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The handsome concrete deck arch bridge supported on concrete abutments has concrete parapets with decorative individual concrete cap stones and octagonal end posts. The bridge is technologically noteworthy because it is well-detailed. The span is one of 4 significant arch spans constructed in conjunction with the development of the nation's first county park system, and it contributes to the historic character of the park.

INFOR MATION

Bibliography:
Essex County Parks Department (Plans).
ONJH National Register Files: Essex County, Branch Brook Park, Newark, New Jersey. The Running Brooks and Other Sketches of Early Newark, by Edward S. Rankin, C.E., The Unionist-Gazette, Somerville, NJ, 1930.

Physical Description: The well-detailed elliptical reinforced concrete arch bridge carries a 2-lane road over a footpath and a small river in a county park. The bridge spans 66' and measures 58'-8" out-to-out. The arch measures 1'-6" at the crown and has an 8' rise. The sidewalks are flanked by concrete parapets with decorative cap stones. The spandrel walls, wingwalls and parapets are bush-hammered. Decorative concrete pilasters extend to concrete lampposts, but the original metal housings for the luminaries do not remain. The span is unaltered.

Historical and Technological Significance: The 1930 reinforced concrete arch bridge is technologically significant because it is a nicely detailed and well-preserved example of its type, and it was designed by a prominent civil engineer. The span is historically distinguished because it is a prominent feature in the National Register-listed Branch Brook Park. It is one of 4 arch bridges constructed between 1898 and 1930 as part of the development of the nation's first county park system, and it is one of seven total significant arch bridges in the park (Criteria A and C).

The bridge was designed by A. Burton Cohen (1883-1956), a consulting engineer based in New York City. He graduated from Purdue University with an engineering degree in 1910 and served as a bridge engineer for the Delaware Lackawanna & Western Railroad until 1920 when he established his own consulting firm. He was noted for his designs of concrete arch bridges, which include the 1926 open-spandrel ribbed concrete arch JFK Boulevard over PATH and Conrail span in Jersey City (0900008), and the Corning Concrete Arch Bridge in Corning, New York, which is the first bridge in the United States to be constructed with cast-in-place concrete piles.

Branch Brook Park is one of the original parks developed as part of the nation's first county park system, and it is listed on the National Register. The Essex County Park Commission was formed in 1895, and they began plans for the development of two major parks, two reservations and four smaller parks. Branch Brook Park was the most important and extensive of the original parks. The park was sectioned into three divisions, the southern, middle and northern divisions, and John Bogart and N.F. Barrett, Landscape Architects and Engineers, provided the initial plans for the southern division of the park. They were terminated in 1897 due to cut backs in funds. In 1898, the Olmsted Brothers firm was hired, and they designed general plans for the completion of the southern division and new plans for the middle and northern divisions. The Olmsted Brothers firm was established by Frederick Law Olmsted, Sr. who is considered the founder of landscape architecture as a profession in this country. In 1857, he designed Central Park in New York, and he is responsible for many other noted landscape works in the country, such as the National Zoo in Washington, D.C., the United States Military Academy at West Point, the Capital Grounds in Washington, D.C., and the campuses of Harvard, Yale, and Stanford universities and Amherst College, among others.

In the mid-1920s the land along the Second River between Newark and Belleville occupied by Hendricks Copper Mills was acquired by the Essex County Park Commission in order to extend Branch Brook Park. In 1927 Caroline Bamberger-Fuld donated over 2000 Japanese Cherry Blossom trees to the Essex County Park Commission to be planted in Branch Brook Park, and the trees were planted in the park extension along the Second River. In 1930 the park road paralleling the Second River known as Mill Street was realigned, and the bridge was constructed amidst the extensive cherry blossom tree collection. The Essex County Park Commission has added to the collection through the years and it is now the largest display and variety of such trees in the United States attracting visitors from all over the country during the spring blooming season.

Boundary Description and Justification: The bridge is located within a National Register-listed historic district. Therefore, the span and surroundings have been evaluated as significant. For a complete description of the boundaries, refer to the actual National Register nomination on file at ONJH.

PHOTO: 706:25-26 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700077 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BRANCH BROOK PARK ROAD OVER FOOTPATH **FACILITY** BRANCH BROOK PARK ROAD

TOWNSHIP NEWARK CITY

TYPE BRICK ARCH **DESIGN** ELLIPTICAL **MATERIAL** Brick

 # SPANS 1 **LENGTH** 28 ft **WIDTH** 40.7 ft

CONSTRUCTION DT 1898 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT ESSEX COUNTY PARK COMMISSION **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane park road and sidewalks over a footpath in a county park. Branch Brook Park, listed on the National Register, is one of the nation's first county parks. The Essex County Park Commission, established in 1895, began construction of the southernmost division of the park where the bridge is located in 1896.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Individually Eligible. Listed. Branch Brook Park Historic District. 01/12/1981. Contributing.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 1898 brick elliptical arch span ranks as one of the most architectonic bridges in the region. It is detailed with oversized rusticated voussoirs and keystone and matching pilasters. The spandrel walls and wingwalls are blond brick. In addition to its technological significance, historically the span is significant because it was built as part of the development of the nation's first county park system, and it is a contributing resource.

INFOR MATION

Bibliography:
Essex County Engineers Office (Plans).
ONJH National Register File: Essex County, Branch Brook Park, Newark, New Jersey. Report of the Essex County Park Commission, 1901.

Physical Description: The richly detailed elliptical brick arch bridge spans 28', and carries a park road and sidewalks over a footpath in a county park. The bridge is flanked by plain concrete parapets with plain concrete pylons. The spandrel walls are constructed of buff brick, and the voussoirs are of stone masonry. Stone masonry pilasters are located at the corner of the brick-faced wing walls. The bridge has not been altered.

Historical and Technological Significance: The handsome brick arch bridge, constructed in 1898, is technologically significant because it ranks as one of the most architectonic bridges in the region, and it is an uncommon type. It is historically distinguished because it is one of 4 bridges constructed between 1898 and 1930 in National Register-listed Branch Brook Park Historic District, a Olmsted Brothers-designed park. The Newark park was developed as the centerpiece of the nation's first county park system. It is one of a total of seven significant arch bridges in Branch Brook Park, and all are evaluated as contributing resources (Criteria A and C).

The Essex County Park Commission was formed in 1895, and they began plans for the development of two major parks, two reservations and four smaller parks. Branch Brook Park was the most important and extensively developed of the original parks. The park was sectioned into 3 divisions. The southern division, where this span is located, was the first section of the park to be developed, and construction began in 1896. John Bogart and N.F. Barrett, Landscape Architects and Engineers, provided the initial plans for the southern division. They were terminated in 1897 due to cut backs in funds.

In 1898, the Olmsted Brothers firm was hired, and it appears that the firm revised the Bogart and Barrett plans for the completion of the southern division and developed the plans for the middle and northern divisions. The bridge plans do not specify a designer, so it is not known for certain if Olmsted detailed the bridge, but it is in the style of their work. The plans do not match exactly the bridge as built. The Olmsted Brothers firm was established by Frederick Law Olmsted, Sr. (1822-1903) who is considered the founder of landscape architecture as a profession in this country. In 1857, he designed Central Park in New York, and he and his firm are responsible for many other noted landscape works in the country, such as the National Zoo in Washington, D.C., the United States Military Academy at West Point, the Capital Grounds in Washington, D.C., and the campuses of Harvard, Yale, Amherst, and Stanford.

The southern division of Branch Brook Park was designed to be comparatively contrived and ornate with special expensive architectural stone ornaments and extensive specimen plantings. The brick arch bridge is the larger of two such detailed masonry spans located in the southern division of the park. The other is not included in the survey because it is less than 20' in length and is therefore classified as a culvert.

Boundary Description and Justification: The bridge is a contributing resource in a National Register-listed historic district. Therefore, the span and its surroundings are evaluated as significant. For a precise description of the district boundaries, refer to the National Register file at NJHPO.

PHOTO: 706:40 707:37 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700079 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED WEEQUAHIC PARK ROAD OVER NEW JERSEY TRANSIT **FACILITY** WEEQUAHIC PARK ROAD

TOWNSHIP NEWARK CITY

TYPE OPEN SPANDREL RIBBED ARCH **DESIGN** ELLIPTICAL **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 222 ft **WIDTH** 40 ft

CONSTRUCTION DT 1931 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT A. B. COHEN, CONSULTING ENG **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a slab bridge carrying NJ Transit tracks and US 22, which the slab bridge also crosses. The bridge is set in a county park, Weequahic Park. The park is one of the original county parks established in the late 1890s by the Essex County Park Commission, and was part of the nation's first county park system.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The open-spandrel ribbed concrete arch is composed of 4 ribs on a concrete substructure. The inner arches have spandrel columns while the outer ones are finished with continuous concrete spandrel walls. The deck is concrete. The Moderne-style parapets are finished with bush-hammered panels and chamfered caps. The concrete lampposts and luminaries remain in place. A good example of an uncommon bridge type, the span, part of an innovative 3-tier crossing, was designed by a noted engineer.

INFOR MATION

Bibliography:
Essex County Engineers Office (Plans).
Personal interview with A.G. Lichtenstein
A.G. Lichtenstein & Assoc. The New York Times. 2/12/1956. Obituary. Newark Public Library. Subject File: Weequahic Park.

Physical Description: The 1932 single-span ribbed open spandrel reinforced concrete arch bridge is composed of four ribs supporting a reinforced concrete slab deck. The interior ribs have spandrel columns while the outer ones are finished with continuous concrete spandrels. The arches are hinged at the abutments to allow the arches to rotate. The bridge spans 222' and measures 58' wide. The bridge is finished in the Moderne style. The parapets have bush-hammered panels with chamfered caps, and decorative concrete lampposts support luminaries. Constructed as part of a three-level crossing, the span was designed to carry a park road over 0718150, a slab bridge that originally carried 6 tracks of the Lehigh Valley Railroad over State Highway Route 29 (now US 22).

Historical and Technological Significance: The open spandrel ribbed arch bridge is technologically significant because it is a well-preserved example of an uncommon bridge type in the state. It is also part of an innovative three-level bridge crossing designed by a prominent civil engineer (Criterion C). It was constructed for the Essex County Park Commission and designed by A. Burton Cohen as part of a three-level crossing. 0718150, a 2-span slab bridge, was constructed under the same project, and it spans beneath this bridge. Mr. Cohen (1883-1956) was a consulting engineer in New York City. He graduated from Purdue University with a degree in engineering in 1910, and he served as Chief Engineer for the Delaware Lackawanna & Western Railroad until establishing his own firm in 1920. While with the railroad, Cohen worked almost exclusively in concrete, and he was awarded the American Concrete Institute's gold medal in 1927. Among his most distinguished projects are the Tuckhannock Viaduct on the DL&W's main line in Nicholson, PA and the grade crossing elimination projects for the railroad through Montclair, Orange and South Orange as well as Nassau County, New York. After leaving the railroad, he designed many other concrete arch bridges including the 1926 open-spandrel ribbed arch JFK Boulevard over PATH and Conrail in Jersey City (0900008) and the 1921 7-span Centerway Bridge over the Chemung River in Corning, New York, which is the first bridge in the United States to be constructed with cast-in-place concrete piles.

Weequahic Park was established as one of the original reservations in Essex County's ambitious county-wide park system established in 1895. Between 1896 and 1899 12 parcels in the what was then swampy land were acquired on the southern edge of Newark. The tract was upgraded to park status in 1910. A lake was created, and the west boundary of the park was extended. The extension included a race track for trotters that was retained. Other recreational facilities were added like the 1907 field house, the 1915 golf course, and the 1916 children's playground building, tennis courts, and comfort building. During World War II, Army barracks were built in the park, and after the war they were used as temporary quarters for military families to help ease the national housing crunch. The last of the barracks was removed in 1955.

Boundary Description and Justification: Although the bridge is located in a park setting, the span is evaluated as individually significant based on its technological distinction. It is part of a three-level structure, so the span under it (0718150) is also evaluated as significant. The boundaries include the two spans themselves and the retaining walls. The park does not appear to meet National Register criteria.

PHOTO: 704:16-18,22 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700083 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED TULIP SPRING BRIDGE OVER WEST BRANCH RAHWAY RIVER **FACILITY** TULIP SPRING BRIDGE

TOWNSHIP MILLBURN TOWNSHIP

TYPE DECK ARCH **DESIGN** ELLIPTICAL **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 20 ft **WIDTH** 40 ft

CONSTRUCTION DT 1928 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT H. C. BAIRD, ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane park road over a small stream in a wooded area located in the South Mountain Reservation, a county park. The Essex County Park Commission was established in 1895, and it developed the nation's first county park system which was designed by Olmsted.. South Mountain Reservation was one of the original tracts secured by the commission.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Not Individually Eligible. Potential South Mountain Reservation Historic District. Contributing.

CONSULT DOCUMENTS SHPO Letter 03/12/01

SUMMARY The concrete deck arch bridge supported on a concrete substructure has ashlar veneer spandrel walls. The arch is detailed with ring stones, and the parapets are ashlar with granite cap stones. The square wire mesh reinforcement is visible at the spalled areas of the intrados. One of over 6 concrete deck arch bridges in the county, the short span is nicely detailed. While the bridge is not individually eligible for listing in the National Register of Historic Places, it would be a contributing element to a South Mountain Reservation Historic District under Criteria A and C should one be identified.

INFOR MATION

PHOTO: 703:41-42 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700084 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED MOUNT PLEASANT PLACE OVER BRANCH RAHWAY RIVER **FACILITY** MOUNT PLEASANT PLACE

TOWNSHIP WEST ORANGE TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Wrought Iron

 # SPANS 1 **LENGTH** 22 ft **WIDTH** 39.4 ft

CONSTRUCTION DT 1882 **ALTERATION DT** 1970ca **SOURCE** FREEHOLDERS MINUTES

DESIGNER/PATENT J. OWENS **BUILDER** W.E. PIERCE, THOMAS BURNS

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small stream separating a wooded residential area developed in the 1950s with a post-WW II light industrial building. The West Orange First Aid Squad, located contiguous to the span, is housed in a Moderne-style stone veneer building dated 1928.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The reportedly wrought iron stringer and brick jack arch bridge supported on stone abutments has metal picket railings flanking concrete sidewalks. Concrete toe walls were added and 3 deck bays were replaced with a reinforced concrete slab in ca.1970. It is one of over 8 stringer and brick jack arch bridges in the county. The span has been significantly altered and no longer retains its design integrity. 0700088 is a significant example of the type located within a historic district.

INFOR MATION

PHOTO: 703:3-5 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700086 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED HOOVER AVENUE OVER THIRD RIVER **FACILITY** HOOVER AVENUE

TOWNSHIP BLOOMFIELD TOWNSHIP

TYPE STONE ARCH **DESIGN** ELLIPTICAL **MATERIAL** Stone

 # SPANS 1 **LENGTH** 20 ft **WIDTH** 30.2 ft

CONSTRUCTION DT 1875ca **ALTERATION DT** **SOURCE** STYLE

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small stream at the edge of a town park. The bridge separates a commercial area, dating from the early 1900s to the present, from a residential neighborhood of apartment buildings dating to the early 1960s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 03/12/01

SUMMARY The 20'-long stone arch bridge has coursed ashlar spandrel walls and rusticated ring stones. Ashlar parapets with granite cap stones flank the concrete sidewalks. Metal picket railings are set atop granite cap stones on flared ashlar wingwalls. The ca. 1875 bridge is one of 7 in Essex County. The bridge maintains exemplary integrity; no known alterations have been made. It is eligible for listing in the National Register of Historic Places under Criterion C as an example of stone arch technology.

INFOR MATION

Bibliography:
Essex County Engineers Office. Bridge Files.

Physical Description: The single-span stone arch bridge has a 20' span. The bridge is composed of coursed ashlar spandrel walls, voussoirs, and parapets and flared wingwalls with granite cap stones. The pointing is well maintained. Metal picket railings remain atop the wingwalls but have been removed from the parapets.

Historical and Technological Description: The undocumented ca. 1875 stone arch bridge is neither historically or technologically distinguished. It is a short-span example of a bridge type that is well represented in the county. No plans for the bridge were located at the county engineer's office and the bridge is undocumented to builder and date of construction. The bridge's setting is not distinguished and includes numerous 20th century intrusions. The are seven stone arch bridges built between 1867 and ca. 1875 in the county. Other examples include the 1869 Millburn Avenue bridge (0700027, Millburn Twp.), the 1868-69 Washington Avenue bridge (0700036, Belleville Twp.), and the 1867 Bridge Street bridge (0700068, Belleville Twp.).

PHOTO: 705:6-7 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700087 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BROOKDALE AVENUE OVER VERONA BROOK **FACILITY** BROOKDALE AVENUE

TOWNSHIP VERONA TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 23 ft **WIDTH** 36 ft

CONSTRUCTION DT 1917 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane residential street and sidewalks over a narrow stream bordered by a stone retaining wall in a neighborhood of single-family homes developed in the 1920s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The encased stringer bridge supported on concrete abutments has concrete balustrades with paneled concrete posts. One of over 22 stringer bridges in the county, the slightly skewed span is an example of a common type in the state, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:44,1 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700088 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED HILLSIDE AVENUE OVER TONEY'S BROOK **FACILITY** HILLSIDE AVENUE

TOWNSHIP GLEN RIDGE BOROUGH TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (BRICK) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 23 ft **WIDTH** 31 ft

CONSTRUCTION DT 1900ca **ALTERATION DT** **SOURCE** STYLE

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small stream in a residential area dating to the 1910s. The bridge is about 50' from Bloomfield Ave. which is lined with early 1900s commercial buildings. A small concrete spillway is located about 5' downstream of the bridge. The bridge is located within a historic district in Glen Ridge Borough.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible. Listed. Glen Ridge Historic District. 08/09/1982. Contributing.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The stringer and brick jack arch bridge supported on ashlar abutments has metal picket railings flanking each sidewalk. The stringers are rolled and metal tie rods are visible from the underside. The unaltered bridge is a well-preserved example of a common local bridge type from the 1880s through about 1910. Located within a historic district noted for its late-18th through mid-20th century architecture, the span was built within the period of significance and is a contributing element.

INFORMATION

Bibliography:
Essex County Engineers Office.
ONJH National Register File: Essex County, Glen Ridge Historic District.

Physical Description: The stringer and brick jack arch bridge supported on ashlar abutments spans 23', and carries a 2-lane road measuring 31' wide and 2 concrete sidewalks flanked by metal picket railings. Tie rods are visible at the underside of the bridge. Utility pipes were added under the bridge superstructure. No plans were located, but the span appears to be unaltered.

Historical and Technological Significance: The stringer and brick jack arch bridge is technologically significant because it is a well-preserved example of its type. It is historically significant because it is located within the Glen Ridge Historic District, and it is a contributing element having been constructed within the period of significance of the district. (Criteria A and C).

The ca. 1900 stringer and brick jack arch bridge is an example of a bridge type that was common in the county from about 1885 through about 1905. After 1905, with the development of the reinforced concrete deck, the brick jack arch deck became obsolete. Although a date of construction for the bridge could not be confirmed, the design and appearance of the span is consistent with other brick jack arch spans built in the county around the turn-of-the century.

The Glen Ridge Historic District is a suburban residential community of large well-preserved single-family homes dating from the late-19th through the mid-20th centuries and with tree-lined streets. The area was developed as a residential community by several entrepreneurs after construction of the railroad in the late 1800s made the area easily accessible, and therefore a practical location for affluent businessmen from Newark and New York City wishing to set up residence in a country setting. Most of the architectural styles popular in the late 19th and early 20th century are represented with the Queen Anne, Shingle, and Colonial Revival predominating. Examples of the Tudor Revival, Spanish Colonial Revival, and the earlier High Victorian styles are present. Glen Ridge Borough seceded from Bloomfield in 1895, and from the beginning, Glen Ridge residents acted to protect and preserve the character of their community. The Glen Ridge Park Association was formed in the late 1880s to acquire mill tracts and other commercial properties along the borough waterways. In 1910, the Borough Council became one of the first municipal bodies in the state to adopt a building code, and in 1921 Glen Ridge was one of the first municipalities in the state to enact a zoning ordinance.

Boundary Description and Justification: The bridge is evaluated as a contributing resource in a National Register historic district. Therefore both the bridge and its surroundings are evaluated as significant. For a complete description of the district boundaries, refer to the Glen Ridge Historic District National Register nomination on file at NJOHP.

PHOTO: 705:8-10 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700101 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0
NAME & FEATURE INTERSECTED PARK AVENUE OVER BRANCH BROOK PARK ROAD & LAKE **FACILITY** PARK AVENUE
TOWNSHIP NEWARK CITY
TYPE STEEL ARCH **DESIGN** ELLIPTICAL **MATERIAL** Steel
 # SPANS 1 **LENGTH** 132 ft **WIDTH** 40.4 ft

CONSTRUCTION DT 1905 **ALTERATION DT** Unknown **SOURCE** PLANS
DESIGNER/PATENT CONCRETE-STEEL ENGRG CO **BUILDER** CONCRETE-STEEL ENGRG CO

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a stream and a 2-lane park road set in a county park. Branch Brook Park is one of the nation's first county parks. The Essex County Park Commission, established in 1895, began construction of the southernmost division of the park in 1896. The bridge is located in the middle division of the park. Branch Brook Park is listed on the National Register.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Individually Eligible. Listed. Branch Brook Park Historic District. 01/12/1981. Contributing.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The handsome and well-proportioned steel arch and concrete bridge has scored octagonal corner piers that extend to concrete lampposts. Metal railings replace the original urn-shaped balusters in the balustrades, and guide rails were added at the curbs. The well-detailed Melan-type arch bridge is the longest of its type in the county, and it is one of 4 significant arch spans built within the period of significance of the historic district. It contributes to the historic character of the park.

INFORMATION

Bibliography:
Essex County Engineers Office (Plans).
Plain and Reinforced Concrete Arches, by J. Melan, authorized translation by D.B. Steinman, John Wiley & Sons, Inc., NY, 1917.
Macmillan Encyclopedia of Architects, Volume 1, Adolf K. Placzek, editor in chief, The Free Press, NY, 1982.
Architects in Practice New York City 1840-1900, by Dennis Steadman Francis for the Committee for the Preservation of Architectural Records.
ONJH National Register File: Essex County, Branch Brook Park, Newark, New Jersey. Report of the Essex County Park Commission, 1901.
Henry F. Withey and Elsie Rathburn Withey, Biographical Dictionary of American Architects, New Age Publishing Co., Los Angeles, 1956.

Physical Description: The elaborately detailed Melan-type steel arch bridge with plain concrete encasement spans 132' with a 16' rise. The crown thickness is 3', the radius of the intrados at the crown is 252', and the radius of the extrados is 304'. The bridge carries a 2-lane road and sidewalks flanked by modern metal railings that span between the original concrete pylons. The metal railings replace the original vase-shaped concrete balustrades lost at an unknown date. The plans indicate that the Melan reinforcement consists of a series of equally spaced curved steel members composed of 2 pairs of angles measuring 3" x 3" x ½" separated by lattice bars measuring 2" x ¼". Engaged octagonal columns at the bridge corners continue as the fully articulated octagonal lampposts. The engaged columns are scored to give the appearance of ashlar. The only known alteration to the span is replacement of the railings.

Historical and Technological Significance: The 1905 steel arch bridge is technologically distinguished as an exceptionally well-detailed example of a span with the Melan-type reinforcing system, a patented design. It was designed and constructed by a prominent firm, the Concrete-Steel Engineering Company. The span is historically distinguished because it is one of 4 bridges built between 1898 and 1930 in the National Register-listed Branch Brook Park Historic District. The park was developed as part of the nation's first county park system, and it was done after plans prepared by the Olmsted firm. It is one of a total of seven significant arch spans in Branch Brook Park (Criteria C).

Joseph Melan, a Viennese engineer, developed the reinforcing system which consists of a series of parallel iron or steel I-beams curved to the profile of the soffit. He was granted an American patent for the invention in 1894, where it quickly became popular because the design combined two constructions familiar to American builders, the iron arch rib and the masonry arch. Fritz von Emperger, a German-born engineer, built the first Melan arch span in this country in Rock Rapids, Iowa, and he is credited with popularizing the technique in the United States. Emperger made additions to the Melan system, adding a beam in the deck and joining the deck and arch beams by means of bars set on radial lines. He was granted a patent for these changes in 1897.

Plans for the span indicate that it was designed for the Essex County Park Commission as a major landscape element of the Branch Brook Park by the Concrete-Steel Engineering Company, consultant. The Concrete-Steel Engineering Company was formed in 1901 by Edwin Thacher and William Mueser, and it was headquartered in the Park Row Building in New York City. The firm was responsible for the design of many important Melan-type arch bridges in this country including the 8 span Grand Avenue Viaduct, Milwaukee, Wis., built in 1907; a 7 span Melan arch in Wichita, Kansas, built in 1911; the 6 span Hudson River Bridge at Glen Falls, NY, built in 1914-15; the bridge over the Mississippi River at Minneapolis composed of 5-231' spans built in 1915-16; and the single span bridge at Scranton, PA. built in 1907.

Edwin Thacher was a prominent civil engineer having obtained patents for the "Thacher Cylindrical Slide-Rule"; "Thacher Steel Bridge Truss"; "System of Concrete Steel Arches" and "Thacher Combination Bridge Truss" among others. He held the positions of Chief Engineer for the Decatur Bridge and Construction Company of Decatur, Alabama, and the Keystone Bridge Company of Pittsburgh, Pennsylvania before opening his own Consulting Engineering Office in Louisville, Kentucky where he was responsible for the design of many truss spans including the 1891 Walnut Street Bridge crossing the Tennessee River in Chattanooga, and the 1892 Costilla Crossing Bridge across the Rio Grande in Colorado, an example of the Thacher truss patented in 1884 and designed to reduce the effect of temperature stresses on the truss members. Thacher formed a partnership in 1894 with Mr. W. H. Keepers and Mr. Wynkoop in Detroit, Michigan. Mr. Wynkoop dropped out of the partnership in 1895 and the partnership of Keepers and Thacher continued until it was

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dissolved on October 5, 1899. The firm constructed the concrete steel arch bridge over the Kansas River at Topeka, Kansas, at that time the largest bridge of its kind in the United States, as well as many other bridge structures. The 1897 West Broadway Avenue Melan-arch bridge (1600017, Passaic County) and the 1899 Wyckoff Avenue Melan-arch bridge (020033E, Bergen County) are attributable to Thacher. Thacher remained with the Concrete-Steel Engineering Company until his retirement in 1912. The 1896 Grand Avenue bridge in Monmouth County (130MT50) is attributed to William Mueser.

The architectural detailing was done by Babb, Cook, and Willard Architects, a partnership between George Fletcher Babb, Walter Cook, and Daniel Willard. The firm was responsible for the design of many private homes and buildings in New York and New Jersey, and they also designed several buildings in other areas of the country. Their most important works include the 1899-1901 Andrew Carnegie House (now the Cooper Hewitt Museum), the 1885-86 De Vinne Press Building, New York, and the 1897-98 F.B. Pratt House, Brooklyn, NY. George Fletcher Babb was born in New York in 1836, and he moved to New Jersey early in his childhood. He designed several New Jersey homes while working in the office of T. R. Jackson in New York City. By 1868 he was the senior draftsman in the office of Russell Sturgis. In 1877, Babb went into partnership with Walter Cook, born in 1846 and an 1869 graduate of Harvard. Cook studied in Munich from 1871-1873 and in Paris under Joseph Auguste Emile Vaudremer from 1873-1876 before joining Babb in partnership. In 1884, Daniel W. Willard joined the partnership. By 1890 Cook was the principal designing partner.

The bridge spans a lake and park road through Branch Brook Park in Newark, and was termed the Midlake Bridge. Branch Brook Park is one of the original parks established by the Essex County Park Commission as part of the development of the nation's first county park system. The park is listed on the National Register as a historic district. The Essex County Park Commission was formed in 1895, and they began plans for the development of two major parks, two reservations and four smaller parks. Branch Brook Park was the most important and extensively developed of the original parks. The park was divided into three divisions, the southern division was the first section of the park to be developed and construction began in 1896. It was designed to be comparatively ornate with special expensive architectural stone constructions and specimen plantings. The northern division was designed to have a natural rustic style, and the middle division was designed to have an intermediate style transitioning between the ornate southern division and the natural style of the northern division. The bridge is located between the southern and middle divisions, and it was designed with elaborate detailing to be compatible with the style of the southern division. Park Avenue was known as Fifth Avenue in Newark at the time of construction. The bridge was built to connect either side of Fifth Avenue through the park. The road was transferred from the jurisdiction of the County Freeholders to the Essex County Park Commission in 1903, and construction of the bridge was completed in 1905.

Boundary Description and Justification: The bridge is located within the Branch Brook Park Historic District, and so it and its surroundings are evaluated as significant. For the exact boundaries of the district, refer to the National Register file maintained by ONJH.

PHOTO: 706:38-39,423:18-21 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700103 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED LINDEN AVENUE OVER PECKMAN RIVER **FACILITY** LINDEN AVENUE

TOWNSHIP VERONA TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 33 ft **WIDTH** 30 ft

CONSTRUCTION DT 1924 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a minor stream in a residential neighborhood of single-family homes developed in the 1950s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The encased stringer bridge supported on concrete abutments has custom concrete parapets with scored geometric designs. The parapet detail is identical to that on 0702465 built in 1921. One of over 22 pre-WW II stringer bridges in the county, the span is an example of a common type in the state, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:2-3 (04/92) REVISED BY (DATE): QUAD: Orange

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700104 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED RUNNYMEDE ROAD OVER PINE BROOK **FACILITY** RUNNYMEDE ROAD

TOWNSHIP ESSEX FELLS TOWNSHIP

TYPE STRINGER **DESIGN** JACK ARCH (CONCRETE) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 29 ft **WIDTH** 20.5 ft

CONSTRUCTION DT 1919ca **ALTERATION DT** Unknown **SOURCE** STYLE

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and grass-covered sidewalks over a small stream bordered by masonry retaining walls. The bridge is located at the southernmost terminus of the Grover Cleveland Park, a county park, and borders a post-WW II residential neighborhood.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The stringer and concrete jack arch bridge is supported on stone abutments from an earlier span. The abutment seats have concrete repairs. Gunite was placed on the stone abutments, and the jack arches at the center bays were replaced with a reinforced concrete slab at an undocumented date. The bridge carries metal picket railings. The span has been altered, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 701:3-5 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700105 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BAKER STREET OVER EAST BRANCH RAHWAY RIVER **FACILITY** BAKER STREET

TOWNSHIP MAPLEWOOD TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 32 ft **WIDTH** 40 ft

CONSTRUCTION DT 1915 **ALTERATION DT** 1928 **SOURCE** NJDOT/PLANS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small stream bounded by masonry retaining walls. A small concrete spillway is located under the span. The bridge borders Maplewood Country Club to the south and Memorial Park to the north. Memorial Park, a town park, is dedicated to the veterans of World War I.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 02/08/90

SUMMARY The slightly skewed encased stringer bridge supported on concrete abutments has standard design concrete balustrades. In 1928, the bridge was widened to the north with encased stringers on concrete abutment extensions. One of over 22 stringer bridges in the county from the pre-World War II era, the short span is an altered example of a common bridge type in the state, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 703:34-35 (04/92) REVISED BY (DATE): QUAD: Roselle

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700108 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BLOOMFIELD AVENUE OVER ERIE LACKAWANNA RAILROAD **FACILITY** BLOOMFIELD AVENUE

TOWNSHIP VERONA TOWNSHIP

TYPE THRU GIRDER **DESIGN** JACK ARCH (CONCRETE) **MATERIAL** Steel

 # SPANS 1 **LENGTH** 54 ft **WIDTH** 55.1 ft

CONSTRUCTION DT 1900 **ALTERATION DT** 1991 **SOURCE** PLANS

DESIGNER/PATENT ERIE RAILROAD COMPANY **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 4-lane collector road and sidewalks over the abandoned Erie-Lackawanna railroad between a residential area developed between the 1920s and the 1950s and a commercial area of Bloomfield Avenue.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 12/07/89

SUMMARY The skewed thru girder with floorbeams bridge supported on stone abutments has concrete jack arches. Metal pipe railing is supported on the stone wingwalls at one side of the bridge. In 1991 holes in the floorbeams were repaired, and the sidewalks were replaced. Due to deterioration, the structural integrity of the bridge is compromised, and the span is currently shored. One of over 8 pre-WW II thru girder bridges in the county, the span is a common type and is not noteworthy.

INFOR MATION

PHOTO: 701:1-2 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700B01 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0
NAME & FEATURE INTERSECTED PARK AVENUE OVER PASSAIC RIVER **FACILITY** PARK AVENUE (AVONDALE BRIDGE)
TOWNSHIP NUTLEY TOWNSHIP
TYPE SWING SPAN **DESIGN** RIM BEARING **MATERIAL** Steel
 # SPANS 3 **LENGTH** 364 ft **WIDTH** 27 ft
CONSTRUCTION DT 1904-05 **ALTERATION DT** 1984 **SOURCE** PLAQUE
DESIGNER/PATENT J. OWEN, R.WATSON, CO.ENGS. **BUILDER** NEW JERSEY BRIDGE COMPANY

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a major river in a commercial area with structures dating from the 1950s to the present. The bridge is known as the Avondale Bridge.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Individually Eligible.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The rim bearing swing span bridge supported on an ashlar substructure is composed of a hybrid pinned/riveted Warren thru truss main span with built-up floorbeams and Warren pony truss approach spans. The electrical system was replaced in 1984. The swing span reflects the state of design knowledge of the time which makes the span an important example of the evolution of movable bridge technology. It is one of four thru truss swing spans in Essex County. All are significant.

INFOR MATION

Bibliography:
Essex County Engineers Office. (Plans)
Essex County Board of Chosen Freeholders Minutes.
Manasquan, New Jersey, compiled by Townsfolk for the Diamond Jubilee under the sponsorship of the Manasquan Chamber of Commerce, 1962.

Physical Description: The rim bearing swing-span bridge is composed of a hybrid pin-connected and riveted double-intersection Warren through truss swing-span and two Warren with verticals pony truss approach spans. The bridge measures 364' in length and carries a 27' roadway and 2 cantilevered sidewalks. The fish-belly shaped top chords are of built-up back-to-back channels connected by lacing at the bottom and a cover plate for most of the span except at the center tower where it is composed of pin-connected stamped eye bars. The same arrangement is also used on the 1906 Gregory Ave. bridge in Passaic County (1600002). The arrangement permits the Warren trusses to act as simply supported span when the bridge is taking live loads. An unusual detail is the transition panel between the pin-connected and rivet-connected portions of the top chords where it is composed of eye bars built up with rivet-connected angles connected by lacing. The diagonals and the lower chords are built up with two pairs of back-to-back angles connected by lacing. They have been strengthened with additional material bolted to the webs. The vertical members are built-up with two pairs of back-to-back angles separated by lacing. The sidewalks are flanked by modern 3-rail metal railings.

The power source and controls for the bridge were altered in 1984 when new motors, generators, and controls were installed. The equipment house was moved to its present mid-span location at that time. The gearing remains the same or inkind replacements. Other work done in 1984 includes repairs to the steel superstructure, rest piers, abutments, and fenders and replacement of the stringers and deck. The truss diagonal members were repaired. The gate houses and operators house, and overhead generating room, including supporting members, also date to the 1984 rehabilitation.

Technological and Historical Significance: The 1904-05 swing-span bridge, designed by the Bergen and Essex county engineers, is historically significant because it is one of fewer than ten spans in the state constructed by the New Jersey Bridge Company, a New Jersey bridge manufacturer who successfully marketed bridges nationally. This is one of if not the largest bridge in New Jersey that they erected. The bridge is technologically significant because its construction details reflect the state of design knowledge at that time which could only account for simply supported spans for live load considerations. The pin-connected top chords are for the tension-only, double cantilever configuration the span assumes during operation (when it is not supported at the toe end by the bearings on the rest piers). The rivet-connected Warren trusses are for live-load configurations. The presence of the not-rigid eye bars would not permit transfer of live-load stresses between spans. (Criteria C). Although the bridge and operating machinery have been altered, the historical and technical significance of the span remain, and the bridge maintains integrity of function.

The New Jersey Bridge Company of Manasquan, New Jersey, was established in 1890 by two men from Canton, Ohio, Mr. Wyckoop and Mr. Braly. The company built many steel bridges in New Jersey, and it employed 15 to 20 draftsmen and up to 100 construction workers. Their bridges have been identified from Maine to Michigan. Financial difficulties incurred due to problems on a bridge in Portland, Maine, caused the failure of the firm in 1907. The F. W. Stillman Company acted as the general contractors for the bridge construction.

Boundary Description and Justification: The bridge has been evaluated as individually significant. The boundary is thus limited to the span itself and includes the superstructure as well as the substructure.

PHOTO: 707:2-4,423:5-11 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.
Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700H01 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED CLAY STREET OVER PASSAIC RIVER **FACILITY** CLAY STREET

TOWNSHIP NEWARK CITY

TYPE SWING SPAN **DESIGN** RIM BEARING **MATERIAL** Steel

 # SPANS 3 **LENGTH** 326 ft **WIDTH** 38 ft

CONSTRUCTION DT 1908 **ALTERATION DT** 1975 **SOURCE** CO. RECORDS/PLANS

DESIGNER/PATENT J. OWENS, CO. ENGINEER **BUILDER** A. E. SANDFORD CO.

SETTING / CONTEXT The bridge carries a 2-lane road and sidewalks over a major river in the heart of industrial Newark. The surrounding structures are industrial and commercial and date from the 1900s through the 1970s.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The triple-intersection Warren thru truss swing-span bridge with 1975 replacement approach spans is supported on concrete abutments and an ashlar center pier. It was significantly altered in 1975 when the operating mechanisms (gears, motors, controls., overhead generator house) were replaced with modern equipment. The span is historically important, and the unusual trusses are fairly complete. The bridge still operates in the original manner and is thus noteworthy.

INFOR MATION

Bibliography:
Essex County Engineers Office: Bridge Plans.
Essex County Board of Chosen Freeholders Minutes.

Physical Description: The 3-span bridge is composed of a riveted triple-intersection Warren through truss rim-bearing swing-span, and two approach spans. The bridge measures 326' in length and carries a 38' roadway and 2 cantilevered sidewalks. The trusses have an unusual profile because of the parabolic-shape of the top chords and the curved connection between the top chords and the end posts. The latter is an aesthetic consideration, not a structural one. The top chords are built-up members composed back-to-back channels connected by lattice at the bottom and a cover plate at the top. The diagonal and vertical members are built-up with two pairs of back-to-back angles separated by lacing or batten plates. The lower chords are back-to-back channels connected by lattice. The trusses themselves have some strengthening, but they are for the most part well preserved. The cantilevered sidewalks are enclosed by the original wrought-iron lattice-pattern railings.

In 1975, the bridge was rehabilitated. The east approach span was replaced with prestressed voided slab beams, stringers were replaced and the girders and floor beams were repaired at the west approach span. The floor beam stiffener angles and stringers were replaced at the swing-span, the bridge deck was replaced, new concrete pedestals were placed at the west quarter pier, a new concrete header was added at the east quarter pier, and the timber fender system was repaired. The truss diagonal members were strengthened by adding plates and angles to form a box section. The gate house at the east approach and the overhead generator room located at the center of the span date to the 1975 rehabilitation. In 1992 the timber fenders were repaired and several sidewalk brackets were replaced.

The operating mechanisms were also replaced in the 1975 rehabilitation, but the span still operates in the original manner, by means of a rack and pinion drive mechanism, now powered by new electric motors (the bridge was originally powered by a steam engine) activated by modern control panels . The pinions and gears (one open set, one enclosed reducer) are now at the side of the drum girder, which rides on inkind replacement wheels, rather than in the original position at the center. There are also new screw jack end lifts rather than wedges. The drum girder, drum girders, radial, and floor beams are original, although they too have been strengthened.

Technological and Historical Significance: The 1908 Clay Street rim-bearing swing-span bridge, located in the industrial heart of Newark, was designed by J. Owen, the Essex County engineer and constructed by A. E. Sandford Co., a local contractor. The span replaced an 1889 wrought iron draw span built to help alleviate heavy traffic on the Bridge Street Bridge (0700H03) located downstream. The swing span was one of at least two in Newark that were powered for many years by a steam engine (Jackson Street (0700H02) is the other. Its steam engine is now in the collection of the Newark Museum).

The bridge is a large example of its type, and the truss type of the main span, a triple-intersection Warren thru truss, is not common. While the bridge has been so altered, the trusses and how the span operates remains fairly original. Because of its size, operable condition, truss type, and historic associations with the development of Newark, one of the premier industrial centers in the region, the span is historically and technologically distinguished (Criteria A,C). It is one of three similar rim-bearing swing span bridges in the center of Newark, and the other two (0700H02, 0700H03) have also been evaluated as significant.

Boundary Description & Justification: The movable span of the bridge is evaluated as significant. The approach spans have been either replaced or severely altered so that they no longer have historical or technological significance. The boundary is thus limited to the movable span and the center pier upon which it bears when in the open position.

PHOTO: 707:43-44,1 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700H02 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED JACKSON STREET OVER RAYMOND BLVD & PASSAIC RIVER **FACILITY** JACKSON STREET

TOWNSHIP NEWARK CITY

TYPE SWING SPAN **DESIGN** RIM BEARING **MATERIAL** Steel

 # SPANS 2 **LENGTH** 710 ft **WIDTH** 39.7 ft

CONSTRUCTION DT 1897 **ALTERATION DT** 1991 **SOURCE** COUNTY RECORDS

DESIGNER/PATENT J. OWENS, CO. ENGINEER **BUILDER** MC CANN FAGAN IRON WORKS

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a major river and a 2-lane one-way street in a industrial and commercial area dating from the early 1900s to the present.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS DOE 05/28/80. SHPO Letter 6/30/95.

SUMMARY The lattice thru truss swing span bridge is supported on a stone substructure. It has been significantly altered. In 1991 repairs to the span included strengthening the truss lower chord and diagonals, and replacing the drum girder, wheel assembly, and floor beams. Additionally, the entire operating mechanism was replaced. The only original feature of the span is the truss lines, but because they are rare examples of an uncommon type, the span remains technologically and historically noteworthy.

INFOR MATION

PHOTO: 704:30, 705:26,27 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0700H03 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED BRIDGE STREET OVER PASSAIC RIVER **FACILITY** BRIDGE STREET

TOWNSHIP NEWARK CITY

TYPE SWING SPAN **DESIGN** RIM BEARING **MATERIAL** Steel

 # SPANS 4 **LENGTH** 371 ft **WIDTH** 39 ft

CONSTRUCTION DT 1913 **ALTERATION DT** 1981 **SOURCE** PLANS

DESIGNER/PATENT UNKNOWN **BUILDER** AMERICAN BRIDGE COMPANY

SETTING / CONTEXT The bridge carries a 2-lane road and sidewalks over a major river in the center of Newark. The structures around the bridge are mainly industrial and commercial and date from the 1900s through the 1970s.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The rim-bearing Pratt thru truss swing span bridge is supported on an ashlar substructure with concrete caps. In 1981 the east gate house was removed, a new overhead control house was erected, and the operation was rendered fully automated. The trusses were also repaired. One of three operational rim-bearing swing spans in the industrial heart of Newark, the span is evaluated as significant based on its type and historical associations despite alterations.

INFORMATION

Bibliography:
Essex County Engineers Office. (Plans)
Essex County Board of Chosen Freeholders Minutes.

Physical Description: The rim bearing swing-span bridge is composed of a riveted Pratt with counters thru truss with curved top chords swing span, and two built-up deck girder approach spans. The bridge measures 371' in length and carries a 39' roadway and 2 cantilevered sidewalks. The top chords are built-up back-to-back channels connected by lattice at the bottom and a cover plate at the top. The diagonal members and the bottom chord are back-to-back channels connected by lacing. The vertical members are built-up with two pairs of back-to-back angles separated by lacing. The sidewalks are flanked by modern 3-rail metal railings. Some of the members, particularly the outside panel members, have been strengthened by additional plates connected with high-strength bolts.

The bridge was rehabilitated in 1981, and although much of the operating machinery and gearing were replaced, some of the new fabric is inkind replacement, and the span still operates in the original manner. The electrical system was completely updated in 1981 as were the operating controls and operator's house, located adjacent to one quadrant of the span. The movable span rotates on wheels affixed to the bottom of the drum girder and inside the rack. While the rack, pinion, and bevel drive gear sets appear to be 1981 replacements, they are inkind and in the original locations. The operation of the bridge was automated in 1981 so that the entire process was performed by engaging a single switch. The automated process was disengaged because the process could not be halted when problems arose. The built-up radials located inside the drum and connected to the center pin and pedestal have web plates. The bearings are now the screw jack type, and they too were installed in 1981. Other 1981 work includes welded floor beams added to the deck girder approach spans and concrete caps added to the ashlar abutments and wingwalls. The bridge deck and stringers were replaced, and the timber fender system was repaired.

Technological and Historical Significance: The 1912 swing-span bridge, located in the industrial heart of Newark, was designed by the county engineer and constructed by the American Bridge Company. The bridge is technologically significant because it is an operating example of an increasingly rare bridge type. It is one of only four known rim bearing swing-span bridges in the county, and it is one of three with curved top chords and curved tops to the end posts. The truss design was popular locally and may well have been done by James Owens, the Essex County Engineer and his staff (Criterion C). In addition to its technological significance, the bridge is associated with the industrial development of Newark, one of the leading industrial centers of the region prior to World War II. The bridge was rehabilitated in 1981, and although some of the work to it resulted in the loss of historic fabric, particularly in the area of the controls and power source, the bridge retains enough of its original material and design to rank as one of the noteworthy swing spans in the state. The bridge is a rim-bearing rather than a center bearing because of its size.

Boundary Description and Justification: The boundary is limited to the swing span and the substructure related to it (pivot pier and rest piers). The approach spans have been so altered that they have lost integrity of original design. Since it is the technology of the swing span that is being recognized, it is appropriate to limit the boundary to just that span.

PHOTO: 707:40-42 (04/92) REVISED BY (DATE): QUAD: Elizabeth

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0701065 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED EAST HOBART GAP ROAD OVER CANOE BROOK **FACILITY** EAST HOBART GAP ROAD

TOWNSHIP LIVINGSTON TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 37 ft **WIDTH** 46 ft

CONSTRUCTION DT 1915 **ALTERATION DT** **SOURCE** PLANS/INSCRIPTION

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a shallow stream in a wooded undeveloped area owned by the water company.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 8/2/90

SUMMARY The slightly skewed encased stringer bridge supported on concrete abutments has custom concrete parapets with geometric shaped panels. The fascia is also paneled. The span is one of four pre-1925 county bridges with custom parapets. One of over 22 stringer bridges in the county, the span is an example of a common type in the state, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:13-14 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0701165 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED PARSONAGE HILL ROAD OVER CANOE BROOK **FACILITY** PARSONAGE HILL ROAD

TOWNSHIP MILLBURN TOWNSHIP

TYPE DECK GIRDER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 55 ft **WIDTH** 40 ft

CONSTRUCTION DT 1929 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and narrow shoulders over a stream in a wooded undeveloped area adjacent to water supply authority property. An abandoned turn-of-the-century pumping station is located at the north west corner of the bridge. JFK Parkway is located about 50' east of the bridge.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The encased deck girder with floorbeams bridge is supported on concrete abutments. The span is flanked by metal railings with concrete posts. Guide rail has been placed in front of a damaged portion of the north railing. The girder encasement is spalled. The span is an example of a common type and it is not well-preserved. The bridge is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:17-18 (04/92) REVISED BY (DATE): QUAD: Roselle

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0701465 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED NEW DUTCH LANE OVER DEEPAVAAL BROOK **FACILITY** NEW DUTCH LANE

TOWNSHIP FAIRFIELD TOWNSHIP

TYPE T BEAM **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 2 **LENGTH** 40 ft **WIDTH** 40 ft

CONSTRUCTION DT 1940 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road over a minor watercourse in a wooded area with light industrial buildings dating to the post-WW II era and adjacent to the Essex County Airport.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 1940 T beam bridge supported on a timber substructure has standard-design open concrete balustrades. A concrete toe wall is visible at the east abutment. The span is an example of a common type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 701:37-38 (04/92) REVISED BY (DATE): QUAD: Pompton Plains

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0701565 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED LITTLE FALLS ROAD OVER DEEPAVAAL BROOK **FACILITY** LITTLE FALLS ROAD

TOWNSHIP FAIRFIELD TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 33 ft **WIDTH** 23 ft

CONSTRUCTION DT 1915 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and grass sidewalks over a small stream in a residential area of single-family homes built in the 1940s and 1950s. A water pumping station constructed in the 1970s is at the upstream end of the bridge. The stream feeds the Passaic River located about 500' from the bridge.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Opinion 10/98, Letter 03/12/01.

SUMMARY The encased stringer bridge supported on concrete abutments has custom concrete parapets with geometric shaped cut-outs. Similarly detailed, custom railings are common in the county (see 0700046, 0701065). Part of the east abutment was rebuilt with brick to facilitate the installation of a storm sewer pipe. One of over 22 stringer bridges in the county, the span is an example of a common type in the state, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 701:33-34 (04/92) REVISED BY (DATE): QUAD: Pompton Plains

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0701665 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED NYE AVENUE OVER ELIZABETH RIVER **FACILITY** NYE AVENUE

TOWNSHIP IRVINGTON TOWNSHIP

TYPE SLAB **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 26 ft **WIDTH** 30.2 ft

CONSTRUCTION DT 1935 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a small low-flow stream carried in a concrete channel with stone retaining walls that line the river through Irvington. The area is commercial with buildings dating from the early 1900s to the present.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The reinforced concrete slab bridge supported on concrete abutments has standard design concrete balustrades. The short span is an example of a common type and is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 704:2-3 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0702150 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 47.77

NAME & FEATURE INTERSECTED US 1&9 NB OVER NJ 22 RAMP **FACILITY** US 1&9 NORTHBOUND

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 3 **LENGTH** 101 ft **WIDTH** 28.5 ft

CONSTRUCTION DT 1931 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** LINDE-GRIFFITH CO.

SETTING / CONTEXT The bridge carries one-directional traffic of a limited access highway over the access ramp to a state highway in an interchange known historically as Newark Junction. It links the Holland Tunnel approach road with north and west highways and Newark Airport.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 9/11/91

SUMMARY The encased stringer bridge with a concrete balustrade is representative of those designed and built by the State in the 1920s and 1930s. It is part of the original interchange known as Newark Junction The interchange has been extensively modified over the years, and there are newer structures located on either side of this bridge. While the bridge itself is not altered, it and the setting are not noteworthy.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0702152 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 47.84

NAME & FEATURE INTERSECTED US 1&9 OVER NJ 21 & US 22 EB **FACILITY** US 1&9 NORTHBOUND

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 4 **LENGTH** 180 ft **WIDTH** 28.5 ft

CONSTRUCTION DT 1929 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** RUST ENG. CO.

SETTING / CONTEXT The bridge carries one direction of a divided, limited access highway over another highway and ramp to another (US 22). It is part of the Newark Junction interchange designed as part of the development of the "superhighway" approach to the Holland Tunnel. It also serves Newark Airport. The interchange has been altered.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 9/11/91

SUMMARY The 4-span encased stringer bridge with a concrete substructure is finished with a concrete balustrade of the same detailing as other stringer spans on the historic approach road to the Holland Tunnel. The column piers are also detailed like others on the route, which is at grade in this section. Although the bridge itself has not been altered, it is an example of a common type, and the interchange and its setting have been extensively modified. The bridge is not noteworthy.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0702465 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED PASSAIC AVENUE OVER PINE BROOK **FACILITY** PASSAIC AVENUE

TOWNSHIP WEST CALDWELL TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 29 ft **WIDTH** 30 ft

CONSTRUCTION DT 1921 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT F. REMIER, COUNTY ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road, utility pipes, and sidewalks over a small stream in a wooded residential area developed in the 1950s to 1960s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The skewed encased stringer bridge supported on concrete abutments has panelled concrete parapets with scored geometric designs. The same parapet detail is found on 0700103 built in 1924. One of over 22 pre-WW II stringer bridges in the county, the span is a representative example of a common bridge type in the state and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 701:8-10 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703065 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED ESSEX STREET OVER WEST BRANCH RAHWAY RIVER **FACILITY** ESSEX STREET

TOWNSHIP MILLBURN TOWNSHIP

TYPE T BEAM **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 1 **LENGTH** 40 ft **WIDTH** 40 ft

CONSTRUCTION DT 1936 **ALTERATION DT** 1969 **SOURCE** PLANS

DESIGNER/PATENT W. BLUHAN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 3-lane one-way street and sidewalks over a low-flow branch of a river carried by a concrete channel with stone retaining walls, and flowing through the center of town. The buildings are commercial use dating from the turn-of-the century to the present.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The T beam bridge is supported on concrete abutments that are continuous with stone retaining walls along the concrete stream channel. Concrete balustrades of standard design border the concrete sidewalks. In 1969 the retaining walls were heightened at one side of the span, and the concrete invert slab was added to the stream bed. The short span is a common type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:21-22 (04/92) REVISED BY (DATE): QUAD: Roselle

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703152 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 49.5

NAME & FEATURE INTERSECTED US 1&9 SB OVER OAK ISLAND YARD AND STREETS **FACILITY** US 1&9 SOUTHBOUND

TOWNSHIP NEWARK CITY

TYPE THRU GIRDER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 98 **LENGTH** 5033 ft **WIDTH** 104 ft

CONSTRUCTION DT 1932 **ALTERATION DT** Demolished: 1998 **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT **BUILDER** ANDREW O'NEILL CO., MEADE CO.

SETTING / CONTEXT The nearly mile long viaduct is in an industrialized area and crosses former Lehigh Valley RR r-o-w. The viaduct is at the western terminus of the elevated portion of the "superhighway" approach road to the Holland Tunnel, and it originally carried 2-directional traffic. Route 1 Extension was the prototype in the development of the elevated limited access highway that eliminates grade crossings.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Bridge was Individually Eligible.

CONSULT DOCUMENTS MOA 7/22/92. SHPO Letter 6/30/95.

SUMMARY The 39-span viaduct composed of T-beam, stringer, and thru girder spans is historically significant as part of the "superhighway" built by the state to solve the traffic problems associated with the Holland Tunnel. It is part of the elevated portion of the road to the tunnel. The viaduct embodies the distinctive characteristics of type and method of construction used by the state's designers on the historic and innovative route. Northbound traffic is carried on the 1949 parallel structure.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703153 **CO** ESSEX **OWNER** NJDOT **MILEPOINT**

NAME & FEATURE INTERSECTED SOUTH STREET OVER CONRAIL & WHEELER POINT ROAD **FACILITY** SOUTH STREET

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** **MATERIAL** Steel

 # SPANS 39 **LENGTH** 1440 ft **WIDTH** 50.5 ft

CONSTRUCTION DT 1929 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** ANDREW O'NEILL CO.

SETTING / CONTEXT The viaduct carries 2-directional traffic of a local street over a railroad r-o-w and a local street. It is a transition from the elevated portion of the "superhighway" approach road to the Holland Tunnel, and it is contiguous to the Pulaski Skyway portion or western end of that historic and innovative roadway. The surrounding area is industrial.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS MOA 7/22/92. SHPO Letter 6/30/95.

SUMMARY The 39-span viaduct is composed of T beam, encased stringer, and deck girder spans, and it retains its original pipe railings. It serves as an access ramp to the elevated portion of the historic approach road to the Holland Tunnel, which is considered America's first superhighway. The bridge is significant for its association with that roadway. Technologically it is representative of period bridge design used by the State Highway Department.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703161 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 50.47

NAME & FEATURE INTERSECTED US 1&9 SB OVER CONRAIL & RICHARDS LANE **FACILITY** US 1&9 SOUTHBOUND

TOWNSHIP NEWARK CITY

TYPE THRU TRUSS **DESIGN** PARKER **MATERIAL** Steel

 # SPANS 2 **LENGTH** 258 ft **WIDTH** 48.5 ft

CONSTRUCTION DT 1927 **ALTERATION DT** 1949 **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** ANDREW O'NEILL CO.

SETTING / CONTEXT The bridge carries the elevation southbound portion of the Holland Tunnel approach road (originally Route 1 Extension) over a railroad r-o-w and a local street in an industrial area. It is part of the original "superhighway" designed and built by the NJ State Highway Department as a solution to the need to move traffic to and from the Holland Tunnel in an efficient manner. This section is elevated on fill with overpasses.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS MOA 7/22/92. SHPO Letter 6/30/95.

SUMMARY The 2-span bridge with a concrete substructure is composed of an asymmetrical Parker truss thru girder bridge and an encased built-up thru girder span. While not technologically innovative, the little-altered bridge is historically significant as part of the historic route that was the prototype of the superhighway in this country. The bridge was evaluated as eligible because it maintains integrity of original design.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703167 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 50.06

NAME & FEATURE INTERSECTED US 1&9 SB OVER NIAGARA STREET **FACILITY** US 1&9 SOUTHBOUND

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 55 ft **WIDTH** 91.4 ft

CONSTRUCTION DT 1926 **ALTERATION DT** 1947 **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** STANGE CONSTRUCTION CO.

SETTING / CONTEXT The bridge carries one direction of a divided highway over a local street in an industrial section of Newark north of Newark Airport. The highway has been widened thus affecting the original setting and integrity of this section of the road, developed in 1925-1932 as the Route 1 Extension or approach road to the Holland Tunnel. This section was comprised of an elevated highway on fill with overpasses over local roads and highways.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 9/11/91, Letter 6/30/95.

SUMMARY The structure has been so compromised by the subsequent changes that it no longer contributes to the historic character of the resource. Addition of the northbound span to the east and the widening to the west act to virtually encase the original structure and obliterate its historic setting. Modifications also included the removal of the original balustrade and block paving. The concrete encased stringer type construction utilized on this span is typical of the route and state design.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703169 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 50.18

NAME & FEATURE INTERSECTED US 1&9 SB OVER MAGAZINE STREET **FACILITY** US 1&9 SOUTHBOUND

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 3 **LENGTH** 68 ft **WIDTH** 60 ft

CONSTRUCTION DT 1926 **ALTERATION DT** 1947 **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** STANGE CONSTRUCTION CO.

SETTING / CONTEXT The bridge carries one direction of a divided highway over a local street in the industrialized section of Newark north of Newark Airport. It was built as part of the 1925-1932 development of Route 1 Extension, the prototype "superhighway" in this country. It was the approach to the Holland Tunnel. This section of the route was comprised of an elevated highway on fill with overpasses over local streets and railroads.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 9/11/91, Letter 6/30/95.

SUMMARY The structure has been so compromised by the subsequent changes that it no longer characterizes the ca. 1930 building campaign of the historic "superhighway." The addition of a bridge to carry northbound traffic to its east and the widening to the west act to virtually encase the original structure and obliterate its historic setting. These modifications include the removal of the original balustrades and block paving. The encased stringer bridge type is typical of this route and state design.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703171 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 50.33

NAME & FEATURE INTERSECTED US 1&9 SB OVER ST CHARLES STREET **FACILITY** US 1&9 SOUTHBOUND

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 3 **LENGTH** 66 ft **WIDTH** 61.6 ft

CONSTRUCTION DT 1927 **ALTERATION DT** 1947 **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** STANGE CONSTRUCTION CO.

SETTING / CONTEXT The bridge carries one directional traffic of a divided highway over a local street in an industrial area of Newark north of Newark Airport. It was built as part of the 1925-1932 development of the approach road for the Holland Tunnel which served as the prototype for the "superhighway" in this country. Originally known as Route 1 Extension, this section was comprised of an elevated highway on fill with overpasses over local streets and railroads.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 9/11/91, Letter 6/30/95.

SUMMARY This structure has been so compromised by subsequent changes that it no longer characterizes the ca. 1930 building campaign of the "superhighway." The addition of a bridge for northbound traffic on the east and widening to the west virtually encase the original structure and obliterate its historic setting. The modifications include removal of the original balustrades and block paving. The encased stringer bridge type used is typical of the route and state design.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703173 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 50.76

NAME & FEATURE INTERSECTED US 1&9 SB OVER ROANOKE AVENUE **FACILITY** US 1&9 SOUTHBOUND

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 2 **LENGTH** 121 ft **WIDTH** 60 ft

CONSTRUCTION DT 1926 **ALTERATION DT** 1947 **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** STANGE CONSTRUCTION CO.

SETTING / CONTEXT The bridge carries one-directional traffic of a divided highway over a local street in the industrial area of Newark north of the airport. It was built as part of the 1925-1932 development of the Route 1 Extension approach road to the Holland Tunnel. The route is the prototype of the "superhighway" in this country. This section was comprised of an elevated highway on fill with overpasses over local streets and railroads.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 9/11/91, Letter 6/30/95.

SUMMARY This structure has been so compromised by subsequent changes that it no longer characterizes the ca. 1930 building campaign for the "superhighway." The addition of a bridge for northbound traffic on the east and widening on the west virtually encase the original structure and obliterate its original setting. The modifications include removal or the original balustrades and block paving. The encased stringer bridge type used is typical of both the route and state design.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703175 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 50.81

NAME & FEATURE INTERSECTED US 1&9 SB OVER CONRAIL (CNJ) **FACILITY** US 1&9 SOUTHBOUND

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 77 ft **WIDTH** 62 ft

CONSTRUCTION DT 1926 **ALTERATION DT** 1947 **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** STANGE CONSTRUCTION CO.

SETTING / CONTEXT The bridge carries one-directional traffic of a divided highway over a local street in the industrialized section of Newark north of the airport. It was built as part of the 1925-1932 development of the Route 1 Extension approach road to the Holland Tunnel. The road is the prototype of the "superhighway" in this country. This section of the route is comprised of an elevated highway on fill with overpasses over local streets and railroads.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 9/11/92, Letter 6/30/95.

SUMMARY This structure has been so compromised by subsequent changes that it no longer characterizes the ca. 1930 building campaign of the "superhighway." The addition of a bridge to carry northbound traffic to the east and widening to its west virtually encase the original structure and obliterate its historic setting. The modifications include removal of the original balustrades and block paving. The encased stringer bridge type used is typical of the route and state design.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703177 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 50.9

NAME & FEATURE INTERSECTED US 1&9 SB OVER FOUNDRY STREET **FACILITY** US 1&9 SOUTHBOUND

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 62 ft **WIDTH** 67.1 ft

CONSTRUCTION DT 1926 **ALTERATION DT** 1947 **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** STANGE CONSTRUCTION CO.

SETTING / CONTEXT The bridge carries one directional traffic of a divided highway over a local street in the industrial area of Newark north of Newark Airport. It was built as part of the 1925-1932 development of what is the prototype of the "superhighway" in this country, the historic approach road for the Holland Tunnel. This section of the Route 1 Extension, as the route was known, was comprised of an elevation highway on fill with overpasses for local streets and railroads.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 9/11/91, Letter 6/30/95.

SUMMARY This structure characterizes the ca. 1930 building campaign for the "superhighway," but it has been so compromised by subsequent changes that it is no longer noteworthy. The addition of a bridge to carry northbound traffic on the east and widening on the west virtually encase the original structure and obliterate its historic setting. The modifications include removal of the original balustrades and block paving. The encased stringer bridge type is typical of the route and state design.

INFOR MATION

PHOTO: (1991) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0703265 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED OLD INDIAN ROAD OVER WEST BRANCH RAHWAY RIVER **FACILITY** OLD INDIAN ROAD

TOWNSHIP WEST ORANGE TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 29 ft **WIDTH** 30 ft

CONSTRUCTION DT 1931 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a shallow watercourse in a residential neighborhood developed in the 1950s and adjacent to the Francis Byrne Golf Course.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The encased stringer bridge supported on concrete abutments has standard design concrete balustrades. A chain-link fence was attached to the top of the north balustrade. One of over 22 pre-WW II stringer bridges remaining in the county, the span is a representative example of a common type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 703:1-2 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0705151 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 0.73

NAME & FEATURE INTERSECTED US 1&9T OVER PASSAIC RIVER, DOREMUS AVENUE **FACILITY** US 1&9T

TOWNSHIP NEWARK CITY

TYPE VERTICAL LIFT **DESIGN** **MATERIAL** Steel

 # SPANS 18 **LENGTH** 2005 ft **WIDTH** 52 ft

CONSTRUCTION DT 1939 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT ASH HOWARD NEEDLES & TAMMEN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries US 1&9 Truck, a 4-lane divided highway and sidewalks, over a major river and a 2-lane collector road in an industrial area dating from the turn-of-the-century to the present. The bridge spans the Passaic River between Hudson and Essex Counties just south of the Pulaski Skyway. It is located on the highway that serviced the area before the Skyway was completed. Trucks were excluded from the Skyway for safety reasons.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The steel vertical lift bridge supported on a concrete substructure has a Warren truss with verticals main lift span and haunched steel girder with floorbeams approach spans. The original metal railings remain on the span. One of the few highway vertical lift spans in the region, the bridge is technologically noteworthy because it is a long and well-preserved example of an important type. It is historically significant because of its association with an important early state highway.

INFOR MATION

Bibliography:
New Jersey Department of Transportation (Plans).
Bridge Engineering, by J. Waddell, John Wiley & Sons, Inc., NY, 1916.
"Morris Goodkind, Bridge Engineer Dies," from The Daily Home News, New Brunswick, NJ, Sept. 7, 1968, pp. 1,12.
Brown, Kathi Ann. Design By Diversity. Kansas City, Missouri: The Lowell Press, 1989.

Physical Description: The 18-span vertical lift bridge is composed of a steel Warren through truss with verticals and a polygonal top chord movable main span, and 17 girder with floor beams approach spans. The bridge measures 2005' long, and it carries a 52' wide barrier divided roadway. The lift span measures 332.5' long. The span provides 40' clearance over the waterway in the closed position, and 135' when fully lifted. The approach spans were rehabilitated 1990ca, and chain-link-fence was attached along portions of the approach. The original metal railing remains for most of its length, and the lift span appears unaltered.

The operation of the lift is controlled from the operator's house which is located about 10' above the sidewalk within the tower at the northwest corner of the lift span. A second control house, which is no longer used, is located in the southwest tower. The gate house and a storage house are located opposite the operator's houses on the east side of the span. The houses in the towers, the control panel, and machinery are all original. The motors that initiate the lift are in the machine houses that are located at the top of both towers. A total of twelve motors, four drive motors and two break motors at each corner of the towers, provide power to operate the bridge. The span is lifted at four points by means of chains that attach to either end of the lift girders. The chains are retracted by the gears, thus moving the span upward, and simultaneously allowing the counterweights, which are located beneath the machine houses, to move downward. The motors were designed to automatically adjust the power supplied in order to ensure the span remains level as it is lifted.

Historical and Technological Significance: The 1939 viaduct is technologically significant because it is a well preserved and large example of an important bridge type. It ranks as one of the longest spans of its type in the region. It is one of two highway vertical lift bridges in the county. The other one is NJ 280 over the Passaic River (0731161) between Newark and Harrison, and it was designed by Waddell and Hardesty in 1945. The bridge is historically noteworthy because it was designed by a prominent consulting engineer firm of Ash-Howard-Needles & Tammen that did much to both pioneer and promulgate the bridge type (Criterion C).

The bridge was built on a new alignment alongside the bridge that carried the Lincoln Highway. That span was removed after construction of this bridge was completed. The original approach roadway to the previous non-extant bridge remain and serve as secondary roads that terminate at either side of the Passaic River. The Lincoln Highway was developed as a result of nationwide support for an "improved" or rock cross country highway. The Lincoln Highway Association was formed in 1913 to lobby and support such a road, but the effort resulted in little in the way of new construction. In New Jersey the highway followed existing roads that were for the most part already improved (paved) through routes. The Lincoln Highway was the main road through the area before the completion of the Pulaski Skyway (1932), which is just south of the 1939 vertical lift bridge.

The firm of Ash-Howard-Needles and Tammen, consulting engineers on the vertical lift bridge project, was one of the nation's leading designers of movable spans. The firm's principal members began their careers in the 1890s and 1900s under the tutelage of bridge engineer J. A. L. Waddell and his partner John Lyle Harrington, who together receive much of the credit for developing the modern vertical lift bridge technology in the United States. In 1914 Waddell and Harrington dissolved their partnership, and a new firm, Harrington, Howard, and Ash, was formed; in 1928 the partnership became Ash-Howard-Needles and Tammen. From 1914 to 1928 the firm designed more than 45 vertical lift bridges, 13 bascule bridges, and six rolling bascule bridges, including a series of 18 movable bridges across the Welland Canal in Ontario, Canada. During the New Deal era of the 1930s, the firm became one of the leading recipients of Public Works Administration bridge projects, and was one of the most active designers of movable spans in New Jersey. In 1930 the firm completed work on the Burlington-Bristol vertical lift bridge across the Delaware River from New Jersey to Pennsylvania. Their work also included the bascule bridges for the Ocean Highway in Cape May County (3900003-3900006), over six bascule bridges for the New Jersey State Highway Department, and three smaller vertical lift spans in southern New Jersey (1710152, 0806151, 0817151).

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

The bridge approaches were designed by the New Jersey State Highway Department Bridge Division under the direction of Morris Goodkind, a prominent bridge engineer. Morris Goodkind was Chief Bridge Engineer of the State Highway Department from 1925 to 1955. Many of the state highway bridges in use today were constructed during his tenure. He won many awards for his designs including an award from the American Institute of Steel Construction for the Oceanic Bridge over the Navesink River (1300S31), built in 1939-1940, as the most beautiful movable bridge built during that year in the country, and similar award for the Passaic River Bridge between Newark and Kearny, built in 1941, and the Absecon Boulevard Bridge in Atlantic City, built in 1946.

Boundary Description and Justification: The bridge is evaluated as individually significant for its technological distinction. The boundary is limited to the bridge itself including the moveable main span, the approach spans, and the substructure.

PHOTO: 705:37-38,1908:5-15 (04/92) REVISED BY (DATE): QUAD: Jersey City

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 070M060 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED TWO BRIDGES ROAD OVER PASSAIC RIVER **FACILITY** TWO BRIDGES ROAD

TOWNSHIP FAIRFIELD TOWNSHIP

TYPE THRU GIRDER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 3 **LENGTH** 268 ft **WIDTH** 30 ft

CONSTRUCTION DT 1928 **ALTERATION DT** **SOURCE** PLANS/PLAQUE

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** DYER KANE COMPANY

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a major river in a wooded flood-plain area at the border with Morris and Passaic Counties. A metal truss bridge crosses the river just north of the bridge. The buildings in the area are residential and commercial dating from the 1940s to the 1970s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 3-span encased thru girder bridge supported on a concrete substructure has cantilevered sidewalks bordered by metal railings with concrete posts. One of over 8 pre-WW II thru girder bridges in the county, the bridge is a representative example of a common bridge type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 701:27-29 (04/92) REVISED BY (DATE): QUAD: Pompton Plains

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 070M063 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED OLD MOUNT PLEASANT AVENUE OVER PASSAIC RIVER **FACILITY** OLD MOUNT PLEASANT AVENUE

TOWNSHIP LIVINGSTON TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 3 **LENGTH** 113 ft **WIDTH** 30.2 ft

CONSTRUCTION DT 1920 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT W. A. STICKEL, CO. ENGINEER **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road that is closed to traffic at the bridge. The road is bordered by sidewalks, and the bridge spans over a major river. The area is residential dating from the 1920s to the 1950s on one side of the span, and office buildings dating in the 1980s on the other.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 12/07/89

SUMMARY The 3-span skewed encased stringer bridge supported on a concrete substructure has standard design concrete balustrades bordering concrete sidewalks. One of over 22 stringer bridges in the county, the span is an example of a common type in the state, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:8-9 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 070M065 **CO** ESSEX **OWNER** COUNTY **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED PASSAIC AVENUE OVER PASSAIC RIVER **FACILITY** PASSAIC AVENUE

TOWNSHIP MILLBURN TOWNSHIP

TYPE THRU GIRDER **DESIGN** PARTIALLY ENCASED **MATERIAL** Steel

 # SPANS 2 **LENGTH** 112 ft **WIDTH** 29.9 ft

CONSTRUCTION DT 1925 **ALTERATION DT** 1969 **SOURCE** INSCRIPTION/PLANS

DESIGNER/PATENT UNKNOWN **BUILDER** NORTHERN CONSTRUCTION COMPA

SETTING / CONTEXT The bridge carries a narrow 2-lane collector road over a major river bordered by wooded undeveloped land. Light industrial buildings constructed in the 1960s through the 1980s are located to the south of the bridge.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 2-span riveted thru girder with encased floorbeams bridge is supported on a concrete substructure. In 1969 the bridge was redecked. Gunite was added at the abutments and floorbeams. Concrete obelisk lampposts without luminaries remain on top of the girders at the bridge corners. One of over 8 pre-WW II thru girder bridges in the county, the span is an altered example of a common type and is not distinguished.

INFOR MATION

PHOTO: 702:15-16 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0713151 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 0.6

NAME & FEATURE INTERSECTED NEWARK VIADUCT (NJ 21) OVER I-78, CONRAIL, AMTRAK **FACILITY** NJ 21

TOWNSHIP NEWARK CITY

TYPE DECK TRUSS **DESIGN** WARREN (ENCASED) **MATERIAL** Steel

 # SPANS 30 **LENGTH** 2943 ft **WIDTH** 44 ft

CONSTRUCTION DT 1932 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** UNKNOWN

SETTING / CONTEXT The viaduct carries a 4-lane divided highway and sidewalks over a 6-lane divided highway, and Amtrak and Conrail tracks. The area is industrial dating from the turn-of-the-century to the present. The viaduct crosses the historic rights-of-way of the Pennsylvania and Lehigh Valley railroads in an industrial section of Newark.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The viaduct is composed of 2 encased Warren deck truss main spans and 28 approach spans composed of either encased thru girders with floorbeams or deck girders with floorbeams. The high parapets are panelled and have modern luminaries attached. The viaduct is well-preserved, the deck truss was a common span type by 1938. More significant examples, such as the 1910 viaduct (0900016), the approaches to the Pulaski Skyway (0901150), and the helix (3800031), better represent the type.

INFOR MATION

PHOTO: 704:24-26 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0714150 **CO** ESSEX **OWNER** RAILROAD **MILEPOINT** 7.23

NAME & FEATURE INTERSECTED NEWARK AND NEW YORK BRANCH OVER NJ 21 **FACILITY** NEWARK AND NEW YORK BRANCH

TOWNSHIP NEWARK CITY

TYPE DECK GIRDER **DESIGN** **MATERIAL** Steel

 # SPANS 1 **LENGTH** 101 ft **WIDTH** 60 ft

CONSTRUCTION DT 1935 **ALTERATION DT** **SOURCE** NJDOT

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a parking deck that was converted from the abandoned tracks of the New York and Newark Branch over a 4-lane city street in an urban commercial and business district dating from the late 1800s to the present. Newark's Penn Station is a few blocks north of the bridge.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The deck plate girder with floorbeams bridge is supported on a concrete abutment and an earlier ashlar abutment with concrete extensions. Metal railings are set on top of the concrete curbs. Originally constructed to carry railroad tracks, the span was converted to provide a parking area. No longer functioning as originally designed, the span is an example of a common type, and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 704:27-29 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0716156 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 5.8

NAME & FEATURE INTERSECTED MAIN STREET OVER SECOND RIVER **FACILITY** MAIN STREET

TOWNSHIP NEWARK CITY

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 1 **LENGTH** 46 ft **WIDTH** 69.1 ft

CONSTRUCTION DT 1930 **ALTERATION DT** **SOURCE** INSCRIPTION

DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over a shallow stream in an industrial area. The Wallace & Tiernan & Co. plant, a chemical company, is located north of the span. The plant was constructed in 1912, and alterations, and additions date to the late 1920s. The Maas & Waldstein Co. plant, located south of the span, was established in 1876, but most of the structures date to the early 1900s. Other local factories date from the early 1900s to the 1940s.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The encased concrete stringer bridge supported on concrete abutments has bush-hammered panels on the fascia stringer encasement. The balustrades are standard design with bush-hammered panels matching the fascia encasement. One of over 22 stringer bridges in the county, the span is an example of a common type in the state, and it is not technologically innovative. The 1930 span replaced an earlier span, and it does not relate historically to the nearby factories.

INFOR MATION

PHOTO: 706:34-35 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0718150 **CO** ESSEX **OWNER** RAILROAD **MILEPOINT** 12.35

NAME & FEATURE INTERSECTED LEHIGH VALLEY MAIN LINE RR OVER US 22 **FACILITY** LEHIGH VALLEY MAIN LINE RAILROAD

TOWNSHIP NEWARK CITY

TYPE SLAB **DESIGN** **MATERIAL** Reinforced Concrete

 # SPANS 2 **LENGTH** 138 ft **WIDTH** 248 ft

CONSTRUCTION DT 1932 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT A. B. COHEN, CONSULTING ENG **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries 2 tracks of the Lehigh Valley Main Line railroad over US 22, a 4-lane divided highway, and is set at the border of Weequahic Park. The bridge is the center level of a 3 tier grade separation with 0700079 spanning overhead. Weequahic Park is one of the original county parks established in the late 1890s as part of the nations first county park system.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 2-span reinforced concrete slab bridge supported on a concrete substructure is constructed on a large skew. The surface of the fasciae is sawtoothed rather than flush, and the panelled parapets follow the shape. The well-detailed span is part of an innovative engineering solution for the common intersection of two roads and a railroad and is technologically noteworthy. It is also the work of noted engineer A. Burton Cohen, a national leader in the design of concrete bridges.

INFORMATION

Bibliography:
Essex County Engineers Office (Plans).
Personal interview with A.G. Lichtenstein
A.G. Lichtenstein & Assoc. The New York Times. Obituary, 2/12/1956.
Newark Public Library. Subject File: Weequahic Park.

Physical Description: The 1932 2-span reinforced concrete slab bridge with plain spandrels is constructed on a large skew. The bridge spans 132' and measures 248' wide. Because of the degree of skew, the bridge has a sawtooth profile, a common 1930s design solution to the problem (also used at 0917169 on the Holland Tunnel approach in Weehawken). Constructed as part of a three-level crossing, the span was designed to carry 6 tracks of the Lehigh Valley Railroad over State Highway Route 29 (now US 22). All but 2 tracks have been removed from the span. An open spandrel ribbed arch bridge (0700079), built at the same time, spans over the bridge, and it carries a park road. Both bridges are visually unified by the same concrete parapets that are finished in the Moderne style with flat panels and chamfered caps. The bridge is well preserved.

Historical and Technological Significance: The slab bridge is technologically significant because it is part of a well-preserved example of an innovative three-level bridge crossing designed by a prominent civil engineer (Criterion C). The slab bridge was constructed for the Essex County Park Commission and designed by A. Burton Cohen (1883-1956), a prominent engineer noted for his work in concrete. Before founding his own consulting engineering firm in New York City in 1920, Cohen had a distinguished career as the bridge engineer for the Delaware Lackawanna & Western Railroad's ambitious programs of eliminating grade crossings in New Jersey and improving its main line in Pennsylvania. Perhaps his most monumental work is the Tunkhannock Creek Viaduct in Nicholson, PA. His grade crossing elimination projects in New Jersey include Montclair, South Orange, and Orange. He graduated from Purdue University with an engineering degree in 1910, and he joined the railroad shortly thereafter. He was awarded the American Concrete Institute's gold medal in 1927. While in private practice, he designed many concrete arch bridges including JFK Boulevard over PATH and Conrail in Jersey City, and the 1921 7-span Centerway Bridge over the Chemung River in Corning, New York, which is the first bridge in the United States to be constructed with cast-in-place concrete piles.

Weequahic Park was established as one of the original reservations in Essex County's ambitious county-wide park system established in 1895. Between 1896 and 1899 12 parcels in the what was then swampy land were acquired on the southern edge of Newark. The tract was upgraded to park status in 1910. A lake was created, and the west boundary of the park was extended. The extension included a race track for trotters that was retained. Other recreational facilities were added, such as the 1907 field house, the 1915 golf course, and the 1916 children's playground building, tennis courts, and comfort building. During World War II, Army barracks were built in the park, and after the war they were used as temporary quarters for military families to help ease the national housing crunch. The last of the barracks were removed in 1955.

Boundary Description and Justification: Although the bridge is located in a park setting, the span is evaluated as individually significant based on its technological distinction. It is part of a three level structure, so the span above it (0700079) is also evaluated as significant. The boundaries include the two spans and the retaining walls. The park does not appear to meet National Register criteria.

PHOTO: 704:19-21 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0719152 **CO** ESSEX **OWNER** RAILROAD **MILEPOINT** 18.42

NAME & FEATURE INTERSECTED MORRISTOWN-ERIE RAILROAD OVER NJ 23 **FACILITY** MORRISTOWN ERIE RAILROAD

TOWNSHIP CEDAR GROVE TOWNSHIP

TYPE THRU GIRDER **DESIGN** **MATERIAL** Steel

 # SPANS 3 **LENGTH** 76 ft **WIDTH** 11.8 ft

CONSTRUCTION DT 1916 **ALTERATION DT** **SOURCE** PLAQUE

DESIGNER/PATENT ERIE RR OFFICE OF ENGINEER **BUILDER** H. J. COLLIER CO.

SETTING / CONTEXT The bridge carries abandoned r-o-w of the Morristown branch of the former Erie Railroad. Trackage was removed in the 1970s. The overpass spans over NJ 23, a 2-lane highway, in a commercial area with structures dating from the 1900s to the present.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 3-span riveted thru girder with floorbeams bridge supported on concrete abutments and steel pier bents has an open timber deck. The bridge exhibits no distinctive construction details. A representative example of a common bridge type for both rail-carrying and road-carrying spans, it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 702:6-7 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0722157 **CO** ESSEX **OWNER** NJDOT **MILEPOINT** 55.43

NAME & FEATURE INTERSECTED US 46 EB OVER PASSAIC RIVER **FACILITY** US 46 EASTBOUND

TOWNSHIP FAIRFIELD TOWNSHIP

TYPE THRU GIRDER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 3 **LENGTH** 248 ft **WIDTH** 43.8 ft

CONSTRUCTION DT 1927 **ALTERATION DT** **SOURCE** INSCRIPTION

DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER**

SETTING / CONTEXT The bridge carries the 2 eastbound lanes of US 46, a 4-lane divided highway with shoulders and sidewalks, over a major river in a mixed commercial and residential area with structures built from the 1950s to the present. Lackawanna Street spans the Passaic River about 500 feet downstream of the bridge, and a modern bridge carries the westbound lanes of US 46 adjacent to the bridge upstream.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 3-span encased thru girder with floorbeams bridge supported on a concrete substructure has cantilevered sidewalks bordered by metal railing with concrete rail posts. The span is a representative example of State Highway Department-designed encased thru girder bridges used on state routes in the 1920s. One of over 8 pre-WW II thru girder bridges in the county, the span is a common type, and it is neither technologically nor historically distinguished.

INFOR MATION

PHOTO: 701:30-32 (04/92) REVISED BY (DATE): QUAD: Caldwell, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0749160 **CO** ESSEX **OWNER** CITY OR MUNC. **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED HAYNES AVENUE OVER AMTRAK **FACILITY** HAYNES AVENUE

TOWNSHIP NEWARK CITY

TYPE THRU GIRDER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 13 **LENGTH** 1164 ft **WIDTH** 40.1 ft

CONSTRUCTION DT 1931 **ALTERATION DT** **SOURCE** INSCRIPTION

DESIGNER/PATENT **BUILDER**

SETTING / CONTEXT The bridge carries a 2-lane road and sidewalks over Amtrak railroad tracks in an industrial area. The local buildings were constructed from the 1890s through the 1960s.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Individually Eligible.

CONSULT DOCUMENTS SHPO Finding 4/30/91, Letter 6/30/95.

SUMMARY The 13-span viaduct supported on a concrete substructure is composed of 9 encased thru girder with floorbeams spans and 4 reinforced concrete girder with floorbeams spans at the east. The cantilevered sidewalks are flanked by panelled concrete parapets on the main spans and metal pipe railing with concrete posts at the approach spans. The SHPO determined the bridge eligible based on its historic association as a ramp to the 1 & 9 Corridor and its similarity of type with other spans on the route.

INFOR MATION

PHOTO: 704:8-13 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
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November 04 , 2002

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0750160 **CO** ESSEX **OWNER** UNKNOWN **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED WILSON AVENUE OVER NEWARK & ELIZABETH BRANCH RR **FACILITY** WILSON AVENUE

TOWNSHIP NEWARK CITY

TYPE THRU GIRDER **DESIGN** **MATERIAL** Steel

 # SPANS 30 **LENGTH** 1258 ft **WIDTH** 30 ft

CONSTRUCTION DT 1938 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT CRR CO OF NJ **BUILDER** AMERICAN BRIDGE COMPANY

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over the Newark-Elizabeth Branch Conrail tracks in a post-WW II light industrial area near Port Newark. The span was originally constructed as a grade crossing elimination, and it carried 2 sets of Public Service trolley tracks over the Central Railroad of New Jersey, N & E Branch. Port Newark was developed from a vast marshland in the early 1900s into a major seaport, and it was opened in October of 1915.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The viaduct is composed of 2 riveted thru girder main spans and 28 steel stringer approach spans and is supported on concrete abutments and steel pier bents. Decorative metal railing line the cantilevered sidewalks and 2 concrete stair cases lead from the sidewalks underneath the bridge. The stairs are in deteriorated condition. One of over 8 thru girder bridges in the county, the bridge is a long example of a common type, and it is not technologically or historically distinguished.

INFOR MATION

PHOTO: 705:30-33 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0751160 **CO** ESSEX **OWNER** UNKNOWN **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED DOREMUS AVENUE OVER LEHIGH VALLEY MAIN LINE RR **FACILITY** DOREMUS AVENUE

TOWNSHIP NEWARK CITY

TYPE THRU GIRDER **DESIGN** **MATERIAL** Steel

 # SPANS 18 **LENGTH** 1253 ft **WIDTH** 25 ft

CONSTRUCTION DT 1918 **ALTERATION DT** 1976, 1986 **SOURCE** PLANS

DESIGNER/PATENT LEHIGH VALLEY RR OFF. OF ENGNR **BUILDER** BETHLEHEM STEEL BRIDGE CO

SETTING / CONTEXT The bridge carries a narrow 2-lane collector road and utility pipes over the Lehigh Valley Main Line railroad tracks in an industrial area located near Port Newark. Port Newark was developed from a vast marshland in the early 1900s into a major seaport. The port was opened in October of 1915.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 18-span riveted thru girder with floorbeams bridge is supported on a concrete substructure. In 1986 and in 1976 repairs were made to the deck and deck joints, and cracked stringer clip angles were replaced. The bridge dates to the early development of Port Newark, but the viaduct is an example of a common type, and it is not technologically innovative or historically distinguished. The area does not appear to have historic district potential.

INFOR MATION

PHOTO: 705:34-36 (04/92) REVISED BY (DATE): QUAD: Elizabeth

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002

NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 0755160 **CO** ESSEX **OWNER** UNKNOWN **MILEPOINT** 0.0

NAME & FEATURE INTERSECTED ARLINGTON AVENUE OVER ORANGE INDUSTRIAL TRACK **FACILITY** ARLINGTON AVENUE

TOWNSHIP BLOOMFIELD TOWNSHIP

TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel

 # SPANS 3 **LENGTH** 111 ft **WIDTH** 30.2 ft

CONSTRUCTION DT 1931 **ALTERATION DT** **SOURCE** PLANS

DESIGNER/PATENT ERIE RAILROAD COMPANY **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge carries a 2-lane collector road and sidewalks over the abandoned r-o-w of the Erie RR Co. The tracks have been removed, and the area is wooded with a few abandoned industrial buildings including one dated 1915.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No

CONSULT STATUS Not Individually Eligible.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 3-span encased stringer bridge supported on concrete abutments and steel pier bents has standard design concrete balustrades bordering concrete sidewalks. A staircase leads from the sidewalks down to the underside at the west side of the southernmost span. One of over 22 stringer bridges in the county, the span is an example of a common bridge type in the state and it is neither technologically innovative nor historically distinguished.

INFOR MATION

PHOTO: 706:14-15 (04/92) REVISED BY (DATE): QUAD: Orange, NJ

A. G. Lichtenstein & Associates, Inc. performed initial survery.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

November 04 , 2002