

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400073	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	LANDING ROAD (CR 631) OVER MORRISTOWN LINE & CANAL ROW			FACILITY	LANDING ROAD (CR 631)		
TOWNSHIP	ROXBURY TOWNSHIP						
TYPE	DECK ARCH	DESIGN		MATERIAL	Reinforced Concrete		
# SPANS	2	LENGTH	136 ft	WIDTH	29.6 ft		
CONSTRUCTION DT	1907	ALTERATION DT		SOURCE	NJDOT		
DESIGNER/PATENT	DL&W RR OFFICE OF ENGINEER			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is contiguous to the Landing RR station in a commercial area. It carries a two-lane road sidewalks over active tracks of a commuter railroad and the abandoned Morris Canal R-O-W (National Register), filled and used as a parking lot. The NJ Cutoff connects with the main line about 1400' west of the bridge. The setting has lost its integrity due to alterations to the canal and station.

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

CONSULT STATUS Individually Eligible. Historic District Status Unresolved.

CONSULT DOCUMENTS SHPO Finding 02/25/95

SUMMARY The two-span reinforced concrete deck arch bridge with a simple metal railing is technologically significant as a relatively early steel and concrete arch. It is also important for its historical associations with both the Morris Canal, still a navigable waterway when the bridge was built, and the DL&W Railroad, a leader in the use of concrete for bridges in the early 1900s. There is spalling on the east fascia and bowing on the west fascia.

INFORMATION

Bibliography:
Lowenthal, L. & Greenberg, W. T., Jr. The Lackawanna Railroad in Northwest New Jersey. 1984.
Morris County Freeholders Minutes. June 8, 1887.

Physical Description: The 136'-long two-span concrete deck arch bridge adjacent to the Landing (Lake Hopatcong) passenger station is enclosed by a simple pipe railing that is original to 1907. The arch springs from about 10' above the ground. While the arches and west fascia have been gunited, there is severe spalling on the east fascia. The bridge crosses two active tracks of the Morristown Line and the abandoned Morris Canal right-of-way, now filled and used as a parking lot. On the north side, adjacent to the arch, are stone retaining walls while concrete retaining walls are on the south.

HISTORICAL AND TECHNOLOGICAL SIGNIFICANCE: The bridge is the earliest earth-filled concrete deck arch in Morris County and the only two-span example of the bridge type in the county. It was designed and built in 1907 by Delaware Lackawanna & Western Railroad, a nationally recognized early leader in the use of concrete in bridge construction (Criterion C).

Although the 1907 multi-span bridge is just east of the National Register-listed 1912 Lake Hopatcong (Landing) station and about 1400 east of the junction of the New Jersey Cutoff with the DL&W's main line, it was built before either of those improvements were underway. In fact, it was constructed when the 1908-1911 New Jersey Cutoff was in the planning stage. Thus the Landing Road bridge ranks as one of the earliest documented reinforced concrete deck arch bridges built by the railroad in the state.

Landing was the major intermodal transfer station for the Lake Hopatcong vacation trade. The 1912 relocation of the station to the uphill or south side of the track required rebuilding the road and bridge into Landing. The station complex originally included a now non-extant concrete pedestrian bridge and access stairs from the station to the north side of the track and covered track side platforms.

The northern arch of the bridge crossed the Morris Canal during the active period of the waterway, which was abandoned in 1924. Although the canal has been filled and this section is used as a parking lot, the right-of-way is listed in the National Register in 1974.

Boundary Description and Justification: The bridge is first and foremost individually significant. It is located to the east of the National Register-listed Landing passenger station, and it crosses the National Register-listed right-of-way of the Morris Canal. Both listed resources have been significantly altered (the canal has been filled and the platform bridge and stair towers built as part of the station have been removed) thus altering the original context of the highway bridge. Because the setting has lost its integrity, the eligible boundary is limited to the span itself.

PHOTO: 508:26A-27A (06/91)

REVISED BY (DATE):

QUAD: Stanhope



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400084	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	WASHINGTON STREET (US 202) OVER JERSEY CITY RESERVOIR		FACILITY	WASHINGTON STREET (US 202)			
TOWNSHIP	BOONTON TOWN						
TYPE	DECK TRUSS	DESIGN	PRATT	MATERIAL	Steel		
# SPANS	5	LENGTH	497 ft	WIDTH	23.5 ft		
CONSTRUCTION DT	1895	ALTERATION DT	1909, 1989	SOURCE	COUNTY ENGINEER		
DESIGNER/PATENT	CANTON BRIDGE COMPANY			BUILDER	CANTON BRIDGE COMPANY		

SETTING / CONTEXT Spanning the headwaters of the Jersey City Reservoir, the bridge separates a wooded light industrial/commercial area of Parsippany Troy Hills Township from a dense residential area of Boonton Town. The bridge was part of a county improvement to provide a shorter route between Boonton and Morristown, prior to the construction of the reservoir. The Morris County Planning Board recognizes the bridge as a historic structure.

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

SUMMARY The deep, pin-connected deck truss bridge has had several modifications including concrete piers added in 1903 and numerous reinforcements and additions to the trusses beginning in 1909. The replacement of the northernmost span with two stringer spans in 1988 eliminated a difficult approach. The truss is historically significant due to its association with the boom years of Boonton. It is technologically distinctive because of its type and many of the alterations are historic changes.

INFORMATION
 Bibliography:
 Robinson, E. Robinson's Atlas of Morris County. 1887.
 Dempsey, A.F. "Old Boonton and The Jersey City Reservoir." 1982.
 A Little Paper Called Boonton, Aug. 23, 1894; May 18, 1895; Jun. 8, 1895; Jun. 15, 1895; Oct. 12, 1895; Oct. 19, 1895; Nov. 16, 1895; Nov. 23, 1895; Dec. 7, 1895; Dec. 28, 1895; Jan 4, 1896; Jan. 18, 1896; Jan. 25, 1896; Feb. 1, 1896; Mar. 28, 1896.
 Postcards in the collection of Jean Lee, Boonton Historical Society.
 Morris County Freeholders Minutes. Oct. 14, 1903; Nov. 11, 1903; April 12, 1905; June 12, 1907.
 "Bridge Building," The American Pictorial Monthly. June-July-August 1902.

Physical Description: The deep three-quarter deck truss bridge, originally built as a 5-span bridge with 4 deck truss spans and one short stringer or girder span on the north end, retains four of the pin-connected deck trusses. It is composed of built-up members with the top chords, inclined end posts, and verticals are toe-out channels with lacing and cover plates; a bottom chords are stamped eye bars. Sway bracing is round eye bar with turnbuckles. The diagonals and counters are stamped eye bars with turnbuckles. The truss was originally supported by stone abutments and steel bents.

The bridge, however, has been modified by a succession of additional members to strengthen the trusses and protect the piers from water damage when the reservoir was filled eight years after the bridge was constructed. Additions to the truss include a middle chord and knee braces for the floor beams, added in 1909, when the original plank deck was replaced with concrete; intermediate diagonals between the bottom and middle chord; and various riveted and bolted reinforcements. Additional diagonal tension members have been added to some panels. The riveted floor beams are apparently original, although the deck was replaced with metal deck pans on new steel stringers in 1958. Concrete piers, presumably cast around the original steel piers, were added by A. W. Edwards & Co., a local contractor, just before the reservoir was flooded in 1903.

The most significant alteration was the removal of the two northernmost spans (one deck truss and one stringer or multi girder) in 1987-1988 and replaced with two stringer spans supported by a concrete hammerhead piers to eliminate a difficult approach angle. A new concrete deck and various bolted repairs to strengthen weak truss members were made at that time. The 1988 rehabilitation was done in a sympathetic manner ensuring that the bridge would continue to function as a pin-connected span.

HISTORICAL AND TECHNOLOGICAL SIGNIFICANCE: The 480' pin-connected Pratt deck truss bridge built in 1895 as a 5-span structure was considered a major accomplishment by the Canton Bridge Company. The bridge is one of two pin-connected deck truss highway bridges documented in the state making it a rare survivor of its type (Criterion C). The span has been modified quite a few times, but the work has been accomplished in a manner that has been sensitive to the original design and thus is not intrusive. The modifications do not detract from the technological significance of the span.

Modifications/alterations began as early as 1903, when the concrete piers were added to protect the structure from water and/or ice damage from the new reservoir. The bridge was previously supported on high built-up steel bents. At that time jurisdiction of the piers passed to the Jersey City Water Supply Company while the superstructure remained with the county. In 1909 the bottom chords, diagonals and pins were adjusted, and the mid-chords were added. That work was designed by noted civil engineer J.A. L. Waddell. The flooring system was done in 1958, but the original built-up floor beams were retained. In 1987-1988, the northernmost 2 span were removed and replaced with modern steel stringer spans on an improved realignment. Truss members were also repaired/strengthened at that time. The 1988 work was designed by A. G. Lichtenstein & Associates for Morris County. The numerous modifications/alterations have changed the trusses from a light, traditional Pratt structure to one of much heavier proportions. Despite the alterations, most of which are either historic changes or done in a manner that is sensitive to the original design and type, the bridge is technologically distinguished because of the rarity of its type, in the depth of the trusses, and the length of the spans. The south abutment and wingwalls are documented examples of the work of Theodore Ringlieb, a local stone mason who contracted for the stonework on numerous bridges in the county.



NEW JERSEY HISTORIC BRIDGE DATA

PHOTO: 503:20-23 (05/91)

REVISED BY (DATE):

QUAD: Boonton

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400136	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	HIGH STREET OVER STONE HOUSE BROOK		FACILITY	HIGH STREET			
TOWNSHIP	BUTLER BOROUGH						
TYPE	STRINGER	DESIGN	JACK ARCH (BRICK)			MATERIAL	Steel
# SPANS	1	LENGTH	31 ft	WIDTH	38.3 ft		
CONSTRUCTION DT	1885ca	ALTERATION DT	1991	SOURCE	NEWSPAPER		
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located in the center of Butler across from the ca. 1880 American Hard Rubber Company factory, converted to office use. The south side of the bridge is a mixed use commercial/residential area while the north end is located in the casually landscaped Butler Park which serves as a town green. Butler developed around the rubber industry, and it may have historic district potential. The bridge was built within the period of significance, but it is largely altered.

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

SUMMARY The ca. 1885 skewed stringer bridge with brick jack arches and an ashlar substructure is the only example of its type in the county, but it is one of at least 20 in northern New Jersey. It has also been drastically altered, including ca. 1970 metal railings and gunite added to the underside in 1991. It does not retain its original/early appearance and thus does not contribute to the historic character of the potential historic district. Better examples of the bridge type remain in the region.

INFORMATION

Bibliography:
 Sanborn Insurance Atlas, Butler, N.J. 1901-1941.
 Beers, F.W., Ellis, A.D., & Soule, G.G.. Atlas of Morris County, 1868.
 Robinson, E. Robinson's Atlas of Morris County, 1887.
 Salvini, E. Historic Bloomingdale. 1984.
 "Board of Freeholders," The Jerseyman. June 10, 1887.

Physical Description: The steel stringer bridge with brick jack arches carries a wide roadway over a narrow brook with stone-lined banks. The bridge is on a large skew. The stone abutments are continuous with the stone-lined retaining walls which stretch for several hundred feet in both directions along the brook. Modern heavy gauge steel railings and a concrete brush curb are incompatible replacements for the original decorative lattice rail. The intrados was gunited in the summer of 1991.

Historical and Technological Significance: While date of construction remains undocumented, the bridge dates stylistically from the last quarter of the 19th century. It is likely the bridge at Butler near the rubber works mentioned in the minutes of the Board of Freeholders in June 1887 is this span. Sanborn Insurance maps of the town are conflicting and indicate that the bridge was never thoroughly surveyed by the company. The bridge dates from the growth years of the former American Hard Rubber Company and its predecessors, around which the village grew. The ca. 1880 brick factory building has been adapted for office use and is identified by a Morris County Historic Commission plaque. The development of the town to the east of Stone House Brook, including the establishment of schools, churches, a borough hall and firehouse, and substantial residential areas, occurred in the last quarter of the 19th century. The Butler Park, contiguous to the bridge is from this period.

The bridge is not a rare type, it has been altered significantly in recent years, and it does not retain integrity of original design. Nor does it contribute to the historic character of Butler. Although it lies in a potential historic district that includes the mill and other buildings in the village center, it is not a contributing resources because of its alterations and resulting modern appearance.

PHOTO: 503:35-38 (05/91) REVISD BY (DATE): QUAD: Wanaque

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400140	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	HAMBURG TURNPIKE (CR 694) OVER PEQUANNOCK RIVER			FACILITY	HAMBURG TURNPIKE (CR 694)		
TOWNSHIP	BUTLER BOROUGH						
TYPE	THRU GIRDER	DESIGN		MATERIAL	Steel		
# SPANS	1	LENGTH	80 ft	WIDTH	18.9 ft		
CONSTRUCTION DT	1925	ALTERATION DT		SOURCE	NJDOT		
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is in Smiths Mills, an early-19th-century hamlet along the Paterson-Hamburg Turnpike, incorporated in 1806. The recently reactivated New York, Susquehanna & Western Railroad crosses at grade west of the bridge while a late-20th century home is located at the east end of the bridge. The bridge was part of the state highway project of the 1920s which utilized the Turnpike for part of Route 8. It carries a 2-lane rural road over a minor river.

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 thru girder with floor beams bridge is supported on ashlar abutments with wingwalls that appear to date to 1875. The superstructure was constructed in 1925, by which time it was a common bridge type. This example is not technologically innovative or distinctive. The bridge is one of ten thru girder spans in the county.

INFORMATION

PHOTO: 503:28-29 (05/91)

REVISED BY (DATE):

QUAD: Wanaque

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400143	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	MAIN STREET OVER PEQUANNOCK RIVER			FACILITY	MAIN STREET		
TOWNSHIP	BUTLER BOROUGH						
TYPE	BOX BEAM	DESIGN		MATERIAL	Prestressed Concrete		
# SPANS	2	LENGTH	81 ft	WIDTH	39.5 ft		
CONSTRUCTION DT	1929	ALTERATION DT	1982	SOURCE	COUNTY ENGINEER		
DESIGNER/PATENT				BUILDER			
SETTING / CONTEXT	The bridge is located at the end of the north end of the Butler business district where light industry has replaced the Pequannock Rubber Company mill which was destroyed by fire in the 1950s. The bridge crosses into Passaic County where Main Street forms a T-junction with the Paterson-Hamburg Turnpike (CR 694), lined with small commercial structures, some adapted from 20th century residences. it carries a wide 2-lane road and sidewalks over a minor river.						
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 box beam superstructure constructed in 1982 replaced the 1929 structure. Portions of the old concrete abutments and the center cutwater pier were reused. On the bridge, the steel balustrade consisting of three rails and posts is modern. However, the reinforced concrete balustrade on the south approaches dates from 1929. Because the span is primarily modern, it is evaluated as not historic based on its age and bridge type.						
INFORMATION	PHOTO: 503:39-40 (05/91)		REVISED BY (DATE):			QUAD: Wanaque	

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400156	CO	MORRIS	OWNER	COUNTY	MILEPOINT
NAME & FEATURE INTERSECTED	LAKE DRIVE OVER CANAL (TRIBUTARY TROY BROOK)		FACILITY	LAKE DRIVE		
TOWNSHIP	MOUNTAIN LAKES BOROUGH					
TYPE	SLAB	DESIGN				
# SPANS	1	LENGTH	22 ft	WIDTH	No Data	
CONSTRUCTION DT	1936	ALTERATION DT				
DESIGNER/PATENT	UNKNOWN		SOURCE	COUNTY ENGINEER		
			BUILDER	UNKNOWN		

MATERIAL Reinforced Concrete

SETTING / CONTEXT The bridge is located in a wooded, low-density residential area started on a 1,000-acre tract in 1909. A series of seven spring-fed lakes are connected by a canal, over which the bridge carries two lanes of traffic and two sidewalks. The surrounding area is a well-preserved upper middle class planned pre-1930 neighborhood with architecturally significant houses, a school, church, and recreational buildings in a casually landscaped setting with common green spaces.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Not Individually Eligible. Potential Mountain Lakes Historic District. Contributing.
CONSULT DOCUMENTS SHPO Letter 03/12/01

SUMMARY Finished with an arched-opening fieldstone spandrel wall, the skewed span is really a concrete slab designed to imitate an elliptical arch. It is one of 2 similar 1938 bridges built as amenities in Mountain Lakes, a 1909 subdivision developed as an exclusive residential enclave dominated by large, architecturally significant pre-World War I houses and related buildings, all in a park-like setting. The bridge contributes to a potential NR-eligible historic district. The bridge does not have the age, size, or distinctive detailing to be an individually eligible resource. While not individually eligible for listing in the National Register of Historic Places, the bridge would be a contributing element of a potential Mountain Lakes Historic District under Criteria A and C.

INFORMATION

Bibliography:
 The League of Women Voters of Mountain Lakes. This is Mountain Lakes. 1961-1989.
 The Landmarks Committee Borough of Mountain Lakes, NJ. The Hapgood Houses of Mountain Lakes. 1983.

Physical Description:

Historical and Technological Significance: The slab bridge finished with cobblestone spandrel walls and parapets is a contributing feature in maintaining the original intent and historic development of Mountain Lakes, a planned suburb dating from 1911 (Criterion A). Masterminded and planned as an exclusive residential park by developer Herbert J. Hapgood, Mountain Lakes was laid out and improved to take advantage of the rustic natural beauty of the property. The subdivision plan included two manmade lakes interconnected by waterways that were adorned with bridges and stone work. The homes were to be placed on generous lots within the natural contours of the land, and they were to be in the Arts & Crafts mode. Key to the success of Hapgood's scheme was the rail link to New York City provided by the Erie-Lackawanna Railroad. The development was immensely popular, and by 1923, 600 homes and many amenities like a social club, community church, and stone walls and culverts had been built. Mountain Lakes became an independent borough in 1924. Remarkably, the original character of the community envisioned by Hapgood has been preserved making Mountain Lakes one of the best examples of a planned early-20th century upper class suburban community in the state.

While the bridge that carries Lake Drive over one of the interlake canals was not built in the initial phase of development (Hapgood went bankrupt in 1922), it was done in the original spirit of the development. It also reflects the intense desire and effort on the part of the community to continue the original development plan well after Hapgood's departure from the scene. The dedication to perpetuating and maintaining the original intent and thus the character of the development has marked the history of the community since the mid-1920s. The 1936 bridge reflects the original style and theme of the potential historic district in which it is located. While not individually distinguished from the technological perspective, the span is of historical significance to the community and the region.

Boundary Description and Justification: The bridge is a contributing resource in a historic district. Thus the span and its surroundings are evaluated as eligible. Defining the exact boundaries of the potential Mountain Lakes Historic District is beyond the scope of this survey.

PHOTO: 514:39-41, 128:8-10 (07/91) REVISD BY (DATE): QUAD: Boonton

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
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NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400273	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	TWO BRIDGES ROAD OVER POMPTON RIVER			FACILITY	TWO BRIDGES ROAD		
TOWNSHIP	LINCOLN PARK BOROUGH						
TYPE	PONY TRUSS	DESIGN	DOUBLE INTERSECTION WARREN			MATERIAL	Steel
# SPANS	2	LENGTH	172 ft	WIDTH	17.4 ft		
CONSTRUCTION DT	1887	ALTERATION DT	1978		SOURCE	PLAQUE	
DESIGNER/PATENT					BUILDER	J. P. BARTLEY & CO.	
SETTING / CONTEXT	The narrow two-lane bridge is located in a flood plain of the Pompton and Passaic Rivers, with undeveloped, lightly wooded land contiguous. It carries a busy feeder road into Passaic County, over the Pompton River, just before its confluence with the Passaic River. An encased stringer bridge (ca. 1930) over the Passaic River is at right angles just southeast of the structure.						
1995 SURVEY RECOMMENDATION	Eligible			HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)	Yes		
CONSULT STATUS	Individually Eligible.						
CONSULT DOCUMENTS	DOE 05/09/80						

SUMMARY The riveted pony truss is significant as the only surviving two-span truss and the only double-intersection Warren truss within the county. Further, it is an example by a small local fabricator, J.P. Bartley & Co., of Morris County. Alterations to the bridge include the addition of steel guiderails and concrete buttresses at the bearings. The floor system was replaced in 1978. Bartley-built bridges are also found in other counties.

INFORMATION

PHOTO: 505:27-29 (06/91)

REVISED BY (DATE):

QUAD: Pompton Plains

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400432	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	BLOOMFIELD AVENUE OVER ROCKAWAY RIVER		FACILITY	BLOOMFIELD AVENUE			
TOWNSHIP	PARSIPPANY-TROY HILLS TOWNSHIP						
TYPE	THRU GIRDER	DESIGN	PARTIALLY ENCASED			MATERIAL	Steel
# SPANS	1	LENGTH	80 ft	WIDTH	30 ft		
CONSTRUCTION DT	1921	ALTERATION DT					
DESIGNER/PATENT	UNKNOWN		SOURCE	INSCRIPTION			
			BUILDER	UNKNOWN			

SETTING / CONTEXT The bridge is located in a commercial area along the former NJ 12, one of the original 15 New Jersey highways created in 1917. Running parallel to US 46, the road now serves as a connector and accommodates vehicular access for businesses with frontage on US 46. The bridge is one of a pair that carry Bloomfield Avenue across the Rockaway River where it is divided by a small, narrow island in the flood plain of Rockaway Neck.

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 built-up thru girder bridge with encased floor beams is supported on a concrete substructure. Concrete end posts incised with the date and highway number protect the ends of the girders. Survey data indicates that thru girders were frequently used on the original state highways for span greater than 50' prior to about 1925. This span is neither historically or technologically distinguished.

INFORMATION

PHOTO: 604:5-6 (05/91) REVISD BY (DATE): QUAD: Caldwell

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400467	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	BROOKLAKE ROAD OVER SPRING GARDEN BROOK		FACILITY	BROOKLAKE ROAD			
TOWNSHIP	FLORHAM PARK BOROUGH						
TYPE	STRINGER	DESIGN					
# SPANS	1	LENGTH	26 ft	WIDTH	25.2 ft	MATERIAL	Steel
CONSTRUCTION DT	1928	ALTERATION DT	1977	SOURCE	COUNTY ENGINEER		
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is contiguous to a private golf course, a housing development under construction, and a wooded wetland area. The bridge carries two lanes of traffic across a minor watercourse.

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 steel stringer bridge is similar to other short spans found throughout the state. Stone masonry abutments from an earlier span have been gunited and stone wingwalls have been repaired with concrete. The heavy gauge pipe railing and concrete parapets are modern replacements. Overall the bridge is undistinguishable from other rural bridges.

INFORMATION

PHOTO: 511:27A-28A (06/91)

REVISED BY (DATE):

QUAD: Morristown

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400488	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	BLUE MILL ROAD OVER SILVER BROOK			FACILITY	BLUE MILL ROAD		
TOWNSHIP	HARDING TOWNSHIP						
TYPE	STRINGER	DESIGN		MATERIAL	Steel		
# SPANS	2	LENGTH	31 ft	WIDTH	21.4 ft		
CONSTRUCTION DT	1919	ALTERATION DT	1950, 1985		SOURCE	NJDOT	
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located in a picturesque setting below Silver Lake dam. The area is sparsely developed residential with late-18th and early 19th century dwellings. The grist mill that stood between the dam and bridge during the 19th century is no longer extant, while the miller's house, contiguous to the bridge, is in good repair. There is potential for a historic district that includes the lake with its stone dam, the miller's house, and other structures in the area.

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 1919 portion of the stringer bridge is supported on rubble-coursed stone abutments. It was widened on the upstream side with stringers on concrete abutments in 1950. It was widened again in 1985 by anchoring ties in the upstream fascia beam and using those ties as the reinforcing for a slab extension. Anchor plates for the rods are exposed. A modern steel bent has also been added. The bridge has been too altered to be evaluated as significant.

INFORMATION

PHOTO: 502:34-35,128:1-2 (05/91)

REVISED BY (DATE):

QUAD: Chatham

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400507	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0	
NAME & FEATURE INTERSECTED	VILLAGE ROAD (CR 646) OVER SILVER BROOK			FACILITY	VILLAGE ROAD (CR 646)			
TOWNSHIP	HARDING TOWNSHIP							
TYPE	PNY TRUSS	DESIGN	PRATT				MATERIAL	Steel
# SPANS	1	LENGTH	28 ft	WIDTH	21.2 ft			
CONSTRUCTION DT	1900	ALTERATION DT	1981		SOURCE STYLE			
DESIGNER/PATENT	UNKNOWN				BUILDER	UNKNOWN		

SETTING / CONTEXT The small pony truss is located in a picturesque, sparsely developed, residential area. The busy connector road crosses a minor watercourse on the two-lane bridge. A separate stringer span carries the sidewalk. The bridge is a non-contributing resource in the Green Village Historic District, recognized by the Morris County Heritage Commission and Planning Board. The county engineer has no data on the fabricator of the span.

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

SUMMARY The 2-panel pin-connected half-hip Pratt pony truss has been altered with welded repairs. The cover plates, gusset plates, bars over the tension rods and bottom chord, outriggers, and channel railing and curbs date from 1981 and 1983. The stone abutments were built up with concrete in 1969 and 1983, shortening the span. The bridge has been so extensively altered that it has little integrity of original design. It is one of 9 Pratt pony trusses in the county. 9050001 is a more complete example.

INFORMATION

PHOTO: 502:28-30 (05/91)

REVISED BY (DATE):

QUAD: Chatham



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400514	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	SUMMIT AVENUE OVER PASSAIC RIVER			FACILITY	SUMMIT AVENUE		
TOWNSHIP	CHATHAM BOROUGH						
TYPE	DECK ARCH	DESIGN	ELLIPTICAL			MATERIAL	Reinforced Concrete
# SPANS	1	LENGTH	75 ft	WIDTH	24.1 ft		
CONSTRUCTION DT	1916	ALTERATION DT				SOURCE	PLAQUE
DESIGNER/PATENT	SMITH(MORRIS), BAUER(PASSAIC)			BUILDER	FOSTER CONSTRUCTION CO.		

SETTING / CONTEXT The bridge carries a 2-lane street and sidewalks over a river at the line between Morris and Passaic counties. The Morris side is a mix of modern industrial and late-19th century residential while the Passaic side is industrial and wooded. The river banks is known to have been the site of a paper board mill during the 19th century, but no above-ground mill buildings remain.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Individually Eligible.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The handsome elliptical arch with attenuated proportions is the best example of its type in the county. Neither the earliest nor the longest, the bridge is the most architectonic and ambitious of the eight similar concrete arches. Built as a joint-county project, the well-detailed span is an excellent example of the City Beautiful movement. The unaltered bridge is highlighted by urn-shaped balustrades. It is significant as a fine example of the well-detailed joint-county spans in the area.

INFORMATION

Bibliography:
 Robinson, E. Robinson's Atlas of Morris County. 1887.
 "Bridge Notice," The Jerseyman, July 9, 1886.
 Cunningham, J. Chatham at the Crossing of the Fishawack.

Physical Description: The handsome and well-proportioned elliptical concrete deck arch bridge is a well-preserved example of its type and style. The arch springs from near the water line in a low elliptical curve. The closed spandrel panels are picked out with incising. Balustrades of reinforced concrete with classically-inspired urn-shaped balusters between paneled rectangular posts continue into the splayed approaches. The balustrade design is one of the most decorative and least altered found on any of the nine concrete deck arches in the county built between 1907 and 1944.

Historical and Technological Significance: Historically known as Edwards Mill Bridge because it is located at the crossing adjacent to the non-extant 19th-century mill, the bridge is the most significant local example of the handsome reinforced concrete deck arch bridges that were frequently used on county boundaries in the 1910s and 1920s. With its elegant balustrades and attenuated proportions, the bridge is more architectonic than most other concrete deck arches in the county. It is also a well-preserved example of a bridge type that was immensely popular during the same period, and it represents the application of aesthetic considerations to civic improvements that is the hallmark of the City Beautiful movement (Criterion C). Plaques on both ends of the bridge document that it was funded by both Union and Morris Counties and was designed by Frederick S, Smith, the Morris County Engineer and Jacob Bauer, the Union County Engineer.

Boundary Description & Justification: Because the bridge is evaluated as individually distinguished, the boundary is limited to the structure itself. The surrounding area does not appear to have historic district potential.

PHOTO: 501:30-33 (05/91) REVISED BY (DATE): QUAD: Chatham

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400515	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0		
NAME & FEATURE INTERSECTED	WATCHUNG AVENUE (CR 646) OVER PASSAIC RIVER			FACILITY	WATCHUNG AVENUE (CR 646)				
TOWNSHIP	CHATHAM BOROUGH								
TYPE	STRINGER	DESIGN	ENCASED				MATERIAL	Steel	
# SPANS	2	LENGTH	82 ft	WIDTH	25 ft				
CONSTRUCTION DT	1925	ALTERATION DT						SOURCE	NJDOT
DESIGNER/PATENT	UNKNOWN					BUILDER	JOHN W. HELLER COMPANY		

SETTING / CONTEXT The bridge is in a mid-20th century industrial/commercial area. Historically, the crossing is known as Bonnel's Bridge due to the strong presence of the family in the immediate area since the mid-18th century and the Bonnel Dam which powered several mills, not of which are extant. The bridge carries two lanes of traffic and two sidewalks across a major watercourse that separates Morris County from Union County.

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 with paneled parapets is representative of period technology. It utilizes concrete for the substructure and has a paneled parapet set with paneled posts. There is some deterioration of the concrete. The bridge is neither historically nor technologically distinctive, and it is one of over 50 stringer spans in the county.

INFORMATION

PHOTO: 501:34-35 (05/91)

REVISED BY (DATE):

QUAD: Chatham

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400516	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0		
NAME & FEATURE INTERSECTED	STANLEY AVENUE OVER PASSAIC RIVER			FACILITY	STANLEY AVENUE				
TOWNSHIP	CHATHAM BOROUGH								
TYPE	STRINGER	DESIGN	ENCASED				MATERIAL	Steel	
# SPANS	2	LENGTH	88 ft	WIDTH	36.3 ft				
CONSTRUCTION DT	1929	ALTERATION DT						SOURCE	NJDOT
DESIGNER/PATENT	UNKNOWN			BUILDER	CARTER H. HARRISON				
SETTING / CONTEXT	The Page Mill Bridge carries an unpaved road and two wide sidewalks across the Passaic River in a non-extant industrial hamlet known as Stanley, now a wooded area on the south end of the bridge and casually landscaped as a park on the north. While no above-ground resources of the roofing felt mill remain, the bridge was undoubtedly built to handle heavy traffic generated by that industry.								
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 with a concrete substructure is an example of a common type used throughout the state prior to World War II. Raised-panel parapets, splayed at the north approach, give the impression of a gateway to the span. The bridge is in good condition, but it is otherwise a representative example of the type. It is one of over 50 stringer bridges in the county. It is not historically or technologically distinguished.								
INFORMATION									
	PHOTO:	502:5-6 (05/91)		REVISED BY (DATE):		QUAD:	Chatham		

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400639	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0	
NAME & FEATURE INTERSECTED	ROXITICUS ROAD OVER NORTH BRANCH RARITAN RIVER		FACILITY	ROXITICUS ROAD				
TOWNSHIP	MENDHAM TOWNSHIP							
TYPE	PNY TRUSS	DESIGN	PRATT				MATERIAL	Steel
# SPANS	1	LENGTH	56 ft	WIDTH	19.8 ft			
CONSTRUCTION DT	1934	ALTERATION DT					SOURCE	PLAQUE
DESIGNER/PATENT					BUILDER			

SETTING / CONTEXT The bridge is located next to the picturesque Pleasant Valley Farm with an 18th-century farmhouse, barns, and outbuildings adjacent to the bridge. The Morris County Historic Sites Survey notes the "beautiful views and pastoral setting" and casually mentions the bridge. Throughout the first half of the 20th century the farm was owned by former state senator Arthur Whitney.

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

CONSULT STATUS Individually Eligible. Listed. Ralston Historic District. 02/20/1975. Contributing.

CONSULT DOCUMENTS SHPO Technical Assistance Letter 12/15/93.

SUMMARY The welded Pratt pony truss bridge is constructed of steel I-beams and channels with gusset plates at the connections. County records indicate that it was built for this crossing in 1934, but the stone substructure is earlier. It is well preserved with the only repair being replacement of one stringer in 1984. The bridge is technologically significant as an early example of a new technology; welding for all shop and field connections. It is one of the earliest all welded bridges in the state.

INFORMATION

Bibliography:
Green, W.K. and Wixom, C.W. "Welded Highway Bridge, Burlington County, New Jersey." The Welding Journal. Vol. 15 (April 1936). 12-16.
Grover, LaMotte. "Foreign Countries Lead U.S. in Welded Bridges." Engineering News-Record. 116 (May 14, 1936). 703-709.
Morgan, Nathan W. "Development of Welded Bridge Construction." Welding Journal. 32 (October 1953). 12-16.
Hess, Jeffrey. Benton Street Bridge (Iowa City, Iowa). HAER Report IA-30; 1989.

Physical Description: The 5-panel, 56'-long Pratt-type pony truss span is composed of rolled I- and channel-sections, and it is distinguished by the fact that it is totally welded. It is supported on rubble-coursed fieldstone abutments that predate this superstructure. Knee braces or outriggers are set on the outside of each truss, and the inner face is protected by plain metal railings welded to the trusses. The bridge appears to be unaltered with repairs being inkind rather than modifications to the original design.

Historical and Technological Significance: The 1934 truss bridge on Roxiticus Road ranks as one of the earliest all-welded pony truss spans in the state. It is technologically noteworthy because it is an early example of its type and represents the transition from riveted to welded connections in the bridge building (Criterion C). Because of its date of erection and state of preservation, the Roxiticus Road span was evaluated as the noteworthy example of the approximately one dozen welded pony truss bridges from the 1930s in the state.

Welded bridges appeared in the United States in the 1920s, but welding was not widely advocated for new bridge construction until immediately after World War II. Electric arch welding began in Europe in the 1880s. The first commercial welding in this country is thought to have been done by Baldwin Locomotive in 1902. It was used successfully during World War I to quickly repair and return confiscated German ships to war service, and after the war welding became a common fabrication practice in heavy industry. The building industry, however, was more cautious in embracing welding. General Electric and Westinghouse Electric both built welded structures in the 1920s. Westinghouse, in particular, was interested in showcasing any new technology allied with electricity, so the company was a leading proponent of electric-arc welding.

The first all-welded highway bridge was a traditional camelback pony truss bridge built in Poland in 1929. Its designer heralded the span as a great saver of material because the design required less steel to produce rigid joints than a riveted truss. Although welding became a common repair technique for bridges during the 1930s, its application to new construction was quite limited, especially in the United States. Of the approximately 1,000 pre-World War II welded bridges in the world, very few were of them were located in this country. But, rather than following Europeans' lead and experimenting with welded bridge designs, Americans tended to follow "the beaten path of riveted construction, the thought being that welding was replacing riveting." The Riverside bridge reflects well the pre-war thinking about all-welded bridges in this country.

During World War II welding came into its own as anything that could be welded together was. By 1945, it was the most important method of joining steel, and after the war all-welded bridges became the norm rather than the exception. Thus, the Riverside bridge stands as a record of the cautious American transition from riveted to welded bridges. Its technological and historical significance is enhanced by the fact that the bridge and its operating mechanism survive in a remarkably complete state of preservation.

Boundary Description and Justification: The bridge is individually significant on its own merits, and the boundary is limited to the bridge itself (superstructure and substructure including any wingwalls).

PHOTO: 506:21-23 (06/91 JPH (5/96))

REVISED BY (DATE):

QUAD: Chester

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400669	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	TINGLEY ROAD OVER WHIPPANY RIVER			FACILITY	TINGLEY ROAD		
TOWNSHIP	MENDHAM TOWNSHIP						
TYPE	STRINGER	DESIGN		MATERIAL	Steel		
# SPANS	1	LENGTH	39 ft	WIDTH	20.2 ft		
CONSTRUCTION DT	1931	ALTERATION DT	1985	SOURCE	NJDOT		
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is contiguous to the Lewis Morris Park of the Morris County Park System, a wooded recreational area developed only for trail use in this section. The road dates from the 18th century and the tail race of the 19th-century Connet mill passes through a culvert immediately to the north. Two 19th-century dwellings are adjacent to the bridge which carries a 2-lane road over a river. The bridge is within a large historic district noted for its country retreat estates.

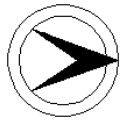
1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Not Individually Eligible. Listed. Washington Valley Historic District 11/12/1992. Contributing.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The steel stringer bridge is supported on earlier stone abutments. The modern replacement pipe railings date from 1985 when the deck was replaced. The altered bridge is neither historically not technologically distinguished. It is undated and undocumented in the nomination, and although it was built one year before the end of the era of the great estates in the valley, and the period of significance of the district, it does not contribute to a developed theme or area of significance.

INFORMATION

PHOTO: 506:10-11 (06/91) REVISED BY (DATE): QUAD: Mendham

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400681	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	WHITEHEAD ROAD OVER WHIPPANY RIVER			FACILITY	WHITEHEAD ROAD		
TOWNSHIP	MORRIS TOWNSHIP						
TYPE	STRINGER	DESIGN		MATERIAL	Steel		
# SPANS	1	LENGTH	24 ft	WIDTH	19.5 ft		
CONSTRUCTION DT	1928	ALTERATION DT		SOURCE	NJDOT		
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located in a rural, wooded area with scattered farms in the Washington Valley Historic District, recognized by the Morris County Heritage Commission. The one-lane bridge carries the road across a trout-stocked stream. In the nomination, which is based in large part of the development of the area for estates between 1881 and 1932. the bridge is incorrectly identified as "late-19th century" and is rated as contributing. Transportation themes are not in the nomination.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Not Individually Eligible. Listed. Washington Valley Historic District 11/12/1992. Contributing.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The steel stringer bridge is supported on earlier stone abutments and wingwalls that were gunited in 1990. While the metal picket railing survives, it shows numerous welded repairs and modern replacement posts. Modern beam guard rail also has been attached it. The bridge is neither historically nor technologically distinguished. While it was built within the period of significance of the historic district, it does not contribute to the district themes or areas of significance.

INFORMATION

PHOTO: 506:8-9 (06/91)

REVISED BY (DATE):

QUAD: Mendham

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400684	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	WASHINGTON VALLEY ROAD OVER WHIPPANY RIVER		FACILITY	WASHINGTON VALLEY ROAD			
TOWNSHIP	MORRIS TOWNSHIP						
TYPE	PNY TRUSS	DESIGN	PRATT			MATERIAL	Steel
# SPANS	1	LENGTH	33 ft	WIDTH	19.4 ft		
CONSTRUCTION DT	1895ca	ALTERATION DT	Demolished		SOURCE	STLYE	
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is in a rural area of the township. Although there are no existing historical resources in the immediate vicinity of the bridge, the area is part of the Washington Valley Historic District which is distinguished by its country estates developed between 1881 and 1932. The bridge contributes to the turn-of-the-century, rural character of the large historic district.

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

CONSULT STATUS Bridge was Not Individually Eligible. Listed. Washington Valley Historic District 11/12/1992. Contributed.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The skewed pin-connected Pratt half hip pony truss bridge rests on stone abutments. The built-up floor beams appear to be original, but the span has significant alterations, including a channel welded to the top chord and plate welded to the end posts. The railings welded to the verticals are also replacement. Because of the alterations the span is not individually significant, and its does contribute to the rural character of the district because of its type and date of construction.

INFORMATION

PHOTO: 505:2-3.507:12 (06/91 JPH (5/96))

REVISED BY (DATE):

QUAD: Mendham

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400779	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	OPENAKI ROAD OVER DEN BROOK			FACILITY	OPENAKI ROAD		
TOWNSHIP	DENVILLE TOWNSHIP			DESIGN	PRATT		
TYPE	PNY TRUSS	LENGTH	55 ft	WIDTH	15.2 ft	MATERIAL	Steel
# SPANS	5	CONSTRUCTION DT	1903	ALTERATION DT	1951	SOURCE	PLAQUE
DESIGNER/PATENT	UNKNOWN			BUILDER	DOVER BOILER WORKS		

SETTING / CONTEXT The one-lane bridge is located in a wooded section on a county road that serves as a by-pass for a state highway. It is approximately ten feet below the stepped ashlar stone dam of Lake Openaki, a small private lake. Adjacent to the bridge is a well-maintained 18th-century dwelling. The southbound traffic that approaches the bridge on a bad curve has the right-of-way over the bridge.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Individually Eligible.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY One of 10 pin-connected truss bridges in Morris county, the 3-panel half-hip Pratt pony truss bridge is the only county example of the Dover Boiler Works, a local fabricator active in the early 20th century. The fact that it is a locally made bridge is significant. While the span has been strengthened with pier bents on concrete pads, it has few welded repairs and retains its integrity. It also has all four maker plates, two cast-iron ball finials, and the bridge committee plaque.

INFORMATION

SOURCES:
 Morris County Engineer's Office. Bridge File.
 Darnell, Victor C. Directory of American Bridge-Building Companies 1840-1900. 1984.
 Platt, Charles D. Dover Dates. 1922.
 Morris County Freeholders Minutes, 1903-1907, 1934.
 Kelly, Robert. Telephone conversation with B. Riley. 24 November 1991. (201-361-6026).

Physical Description: The 3-panel pin-connected half hip Pratt pony truss is a relatively complete example of its type. The top chord and inclined end posts are composed of channels with riveted cover plates while verticals are toe-in angles joined by lattice. Diagonals are pairs of 2" round bars with loop forged eyes, and turnbuckles are used in the middle panel only. The bottom chord is made up of drop-forged eye rods. Welded gusset plates have been added at the top and bottom panel points. The built-up riveted floor beams appear to be original, but they are strengthened by rolled I-beams placed below the original floor beams. Both beams are connected to the panel point by U-bolts. Strengthening knee braces were welded on the north verticals but not to the ones on the south end. Steel bents on a continuous concrete footing were added near the abutments and at the interior panel point in 1951, changing the bridge from a one-span to a 5-span structure. The 1975 asphalt-filled corrugated metal deck is a replacement for a plank floor. While a channel curb has been added to protect the truss members, the riveted lattice rail is apparently original to the structure.

Cast-iron plates are at each of the four corners identify the fabricator, with two on the west side retaining the ball finials. On the west side is a cast plaque bearing the date and names of the bridge committee members.

Abutments and wingwalls are stone, presumably built for the current bridge, as in most Morris County metal bridges. Gabions were added on the north end of the bridge in 1980.

Historical and Technological Significance: The Pratt half-hip pony truss bridge is significant in that it is the only Morris County example of a truss bridge by a local fabricator, the Dover Boiler Works. Dover Boiler Works was started in 1874 as a small repair shop doing hand repair work. It grew "into the largest and best equipped contract Plate Work Shop in the New York District and possibly the entire east" (Platt, p. 233). They manufactured a general line of steel plate work such as tanks, stand pipes, stills, dryers, bins, and steel shapes and plate like angles, channels, rivets, blots, and castings. The products were fabricated from materials secured from major steel mills in Pennsylvania and marketed for industrial use worldwide.

The company was established in 1874 by the Foster F. Birch who was succeeded by his son William F. Birch, who was active in national politics. It went into receivership in 1934 and the plant was destroyed by fire in 1935. While it is uncertain how important bridge fabrication was to the company, Dover Boiler Works was a major contractor for bridge repairs in Morris County from the early 1900s the company's end in the 1930s. The company also constructed stringer bridges throughout the county during this period.

Bridges fabricated by Dover Boiler Works have been identified in Somerset and Hunterdon Counties. Their 1903 Griggstown Causeway (18F0302) in Somerset County has numerous welded reinforcements that have compromised its integrity, but noteworthy examples of the work of the company that date to as late as 1919 are in place in Hunterdon County.

PHOTO: 509-5-6,510:4 (06/91) REVISED BY (DATE): QUAD: Mendham

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400801	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	LAKE ROAD OVER WHIPPANY RIVER			FACILITY	LAKE ROAD		
TOWNSHIP	MORRISTOWN TOWN						
TYPE	DECK ARCH	DESIGN	ELLIPTICAL			MATERIAL	Reinforced Concrete
# SPANS	1	LENGTH	80 ft	WIDTH	20.2 ft		
CONSTRUCTION DT	1944	ALTERATION DT	Demolished		SOURCE	COUNTY ENGINEER	
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located in a wooded setting and crosses the headwaters of Speedwell Lake. It is situated between the former right-of-way of the Rockaway Valley (Rockabye Baby) Railroad and a second bridge over the lake. The Patriot's Path, a public footpath maintained by the Morris County Park Commission, crosses the lake on the bridge. The structure is within the Historic Speedwell Historic District boundaries, but is a non-contributing structure based on its date of construction.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Bridge was Not Individually Eligible. Listed. Historic Speedwell Historic District. 11/13/1986. Noncontributed.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The elliptical concrete deck arch bridge built in 1944 incorporates the stone wing walls from previous span at what has been a crossing since at least the mid-19th century. The arch, with a pipe railing, is the latest of the 10 deck arches built in the county between 1911 and 1944. It has been altered by the addition of a sidewalk. The span is outside the period of significance of the historic district and is evaluated as not having historical or technological significance.

INFORMATION

PHOTO: 501:3-4 (05/91)

REVISED BY (DATE):

QUAD: Morristown

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400802	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	LAKE ROAD OVER WHIPPANY RIVER			FACILITY	LAKE ROAD		
TOWNSHIP	MORRISTOWN TOWN						
TYPE	STRINGER	DESIGN		MATERIAL	Steel		
# SPANS	1	LENGTH	29 ft	WIDTH	20.6 ft		
CONSTRUCTION DT	1944	ALTERATION DT	Demolished	SOURCE	COUNTY ENGINEER		
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is in a wooded area at the head of Speedwell Lake, within the Historic Speedwell Historic District (National Register), a 19-th century industrial complex which used the lake as a power source. To the south is a 1944 concrete arch bridge and to the north is a nondescript 1950s residence and the former town dump, now used as a recycling center. With two lanes of traffic the bridge also carries a sidewalk for the Patriot's Path, a footpath maintained by the county.

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

CONSULT STATUS Bridge was Not Individually Eligible. Listed. Historic Speedwell Historic District. 11/13/1986. Noncontributed.

CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The short bridge is constructed of rolled steel stringers with steel angles riveted to the to web. The bridge was built during World War II with stringers apparently reused from a another structure. Stone masonry abutments and wingwalls predate the superstructure. The white pipe railing is common among rural bridges. The superstructure is technologically undistinguished, and it was built after the period of significance of the Historic Speedwell Historic District so is thus non-contributing.

INFORMATION

PHOTO: 501:5-6 (05/91)

REVISED BY (DATE):

QUAD: Morristown

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400819	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	ESPANONG ROAD OVER LAKE HOPATCONG			FACILITY	ESPANONG ROAD		
TOWNSHIP	JEFFERSON TOWNSHIP						
TYPE	STRINGER	DESIGN		MATERIAL	Steel		
# SPANS	1	LENGTH	39 ft	WIDTH	24 ft		
CONSTRUCTION DT	1925	ALTERATION DT		SOURCE	NJDOT		
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located on a causeway over a cove at the northeast end of Lake Hopatcong, the largest lake in the state. Marinas are at both ends of the bridge, and substantial recreational marine traffic passes under the span. The two-lane road carried by the bridge is a connector for residents to shopping areas.

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 simple steel stringer bridge is a representative example of the most common pre-World War II bridge type in the state. Concrete abutments and splayed wingwalls are painted to caution boaters of the restricted waterway. Recent alterations include replacing the original railing with welded channel railings with metal mesh. The structure is neither technologically innovative nor historically significant. It is one of over 50 stringer bridges in Morris County.

INFORMATION

PHOTO: 509:39-40 (06/91) REVISD BY (DATE): QUAD: Dover



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400855	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	WINDEMERE AVENUE (CR 616) OVER GLEN BROOK			FACILITY	WINDEMERE AVENUE (CR 616)		
TOWNSHIP	MOUNT ARLINGTON BOROUGH						
TYPE	STONE ARCH	DESIGN	BARREL	MATERIAL	Stone		
# SPANS	1	LENGTH	36 ft	WIDTH	32 ft		
CONSTRUCTION DT	1893	ALTERATION DT		SOURCE	PLAQUE		
DESIGNER/PATENT	UNKNOWN			BUILDER	THOMAS J. ALLEN		

SETTING / CONTEXT The Glen Bridge is located in a wooded residential area on a busy connector road. Contiguous to the bridge is Tanglewood Glen Park, a wooded parkland created in the late 1880s when Mt. Arlington was being developed as a summer resort. While well outside the Mt. Arlington Historic District (National Register), the bridge is listed in the MCHC Historic Sites Survey, with comment on the late-19th-century combination of the picturesque and utility.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Individually Eligible.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY Construction of the handsome barrel arch with stepped wingwalls was one of first public works projects in the newly formed borough of Mt. Arlington. The rusticated stonework and date in the keystone are similar to the Speedwell Bridge (1416152), by the same contractor. However, the setting, unique wingwalls, and relationship to the park and community, make the bridge historic in its own right. It is one of the few bridges in the county with an elevation in clear view from a public road.

INFORMATION

Bibliography:
 Robinson, E. Robinson's Atlas of Morris County. 1887.
 Guter, R. Morris County Historic Sites Survey. 1986.

Physical Description: A well-proportioned barrel stone arch bridge that spans a small glen at the lower edge of a wooded public park, the span is virtually unnoticeable from the roadway. However, from a lower branch road there is an unobstructed view of the north elevation through a private land where the small stream of Windermere Brook flows. The random-coursed, rusticated stone barrel arch bridge with square voussoirs has flared stepped wingwalls. Both the span and the wingwalls are capped with large, rusticated granite slabs. On the inside faces of the parapets are stone tablets documenting the incorporation of the borough and the bridge commissioners. The date of construction is also cut into the keystones.

HISTORICAL AND TECHNOLOGICAL SIGNIFICANCE: The well-proportioned span is one of the aesthetically most pleasing examples of a stone arch bridge technology in the county. It was built as a civic amenity in an area of the county developed in the postbellum period as a summer resort for the wealthy, who arrived mainly by train and lake steamer. The bridge location, at the bottom of Tanglewood Glen Park, was between the North Park with its two hotels and large private residences, and the South Park, being developed as private residences. Tanglewood Glen Park, a wooded park with footpaths, served as a recreation area between the two major residential areas and continues to remain a public park.

With no alterations, the bridge is significant as an example of local stonework combining the picturesque with the functional purpose of spanning a small ravine. It is also representative the grand era of Lake Hopatcong resort hotels and the development of Mt. Arlington as a planned community that catered to the wealthy New York seasonal trade. While none of the hotels are have survived, a section of the single family houses remains, and it comprised the National Register-listed Mount Arlington North Park Historic District. The bridge is not within on the boundaries of the district.

Boundary Description and Justification: Because the bridge is individually significant, it is the span itself and its wingwalls that define the limits of the eligible resource.

PHOTO: 509:19-21 (06/91)

REVISED BY (DATE):

QUAD: Stanhope

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400917	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	MOUNT PLEASANT TURNPIKE OVER DEN BROOK			FACILITY	MOUNT PLEASANT TURNPIKE		
TOWNSHIP	DENVILLE TOWNSHIP						
TYPE	STRINGER	DESIGN		MATERIAL	Steel		
# SPANS	1	LENGTH	25 ft	WIDTH	17.3 ft		
CONSTRUCTION DT	1925	ALTERATION DT	1978	SOURCE	COUNTY ENGINEER		
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The one-lane bridge is located in a wooded, residential and recreational area. A wooded park is to the southeast of the bridge while scattered residences dating from the 19th and 20th centuries are to the north. The crossing itself dates to at least 1806 when the Newark and Mount Pleasant Turnpike was incorporated for transporting iron from the Dover area to the major markets. No resources from the turnpike are contiguous to 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 narrow steel stringer bridge is a representative example of a common type. While parts of the substructure are stonework from an earlier span, these were expanded with concrete for the current superstructure. Parts of the substructure have been gunited. Other alterations include the channel curbs and railings welded to I-section posts which were added when the deck was replaced in 1978. The bridge is neither historically nor technologically distinguished.

INFORMATION

PHOTO: 509:3-4 (06/91) REVISD BY (DATE): QUAD: Mendham



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400937	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0		
NAME & FEATURE INTERSECTED	BLOOMFIELD AVENUE OVER DEN BROOK			FACILITY	BLOOMFIELD AVENUE				
TOWNSHIP	DENVERLE TOWNSHIP								
TYPE	STRINGER	DESIGN	ENCASED				MATERIAL	Steel	
# SPANS	1	LENGTH	36 ft	WIDTH	21 ft				
CONSTRUCTION DT	1921	ALTERATION DT						SOURCE	PLAQUE
DESIGNER/PATENT	UNKNOWN					BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located in a commercial highway setting on a road that now serves as a two-lane exit ramp from NJ 46 to the Denville business district. It was built as part of the original state highway system for NJ 12 which followed Bloomfield Avenue in this area. Mid- to late-20th century commercial structures are scattered along US 46, with none contiguous to 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 stringer bridge with concrete balustrades is supported on stone abutments from an earlier span that were widened with concrete in 1921 to accommodate this superstructure. The sidewalk carried on steel stringers is a later addition. The bridge, one of over fifty stringer bridges in Morris County, is neither historically significant nor technologically distinctive.

INFORMATION

PHOTO: 510:35-36 (06/91) REVISD BY (DATE): QUAD: Boonton



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1400976	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	EAST MAIN STREET OVER ROCKAWAY RIVER		FACILITY	EAST MAIN STREET			
TOWNSHIP	ROCKAWAY BOROUGH						
TYPE	STONE ARCH	DESIGN	ELLIPTICAL			MATERIAL	Stone
# SPANS	3	LENGTH	93 ft	WIDTH	33.1 ft		
CONSTRUCTION DT	1840ca	ALTERATION DT	1890, 1905		SOURCE	STYLE/FREEHLDR MIN.	
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT Located at the end of Main Street in Rockaway, the bridge is a transition from the commercial center to a residential neighborhood. The area has mainly 19th-century structures, but some modern intrusions exists at the west end of the bridge. Just upstream is the dam for the forge and grist mill, both nonextant, owned by the Jackson and Halsey families during most of the 19th century.

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

SUMMARY The 1840 well-proportioned 3-span stone arch bridge is reasonably well preserved on the east side which is finished with voussoirs. The west side was widened with concrete in 1905, but it retains the lines of the arches. A steel stringer sidewalk on east side dates to 1890 and is supported on stone abutments and steel caissons. It is a significant detail as is the survival of the lattice railing with cast-iron posts. The bridge is significant as an early stone arch span and for the caissons.

INFORMATION

Bibliography:
 Beers, F.W., Ellis, A.D., & Soule, G.G. Atlas of Morris County. 1868.
 Robinson. Robinson's Atlas of Morris County. 1887.
 L. Lowenthal and W. T. Greenberg, Jr. Morris County Traction Company. 1984.
 Morris County Freeholders Minutes. July 9, 1890, October 11, 1905.
 Rockaway Borough Bicentennial Committee. Rockaway Borough, A History. 1976.

Physical Description: The well-proportioned 3-span elliptical stone arch bridge is constructed of rubble-coursed local stone. The arches spring from near the water line and are finished with ring stones. The width of the span was nearly doubled in 1905 with a concrete extension on the west side. The intrados of the arches have been gunited. A sidewalk on separate, continuously supported stringers on the east side was constructed added by the Riverside Bridge Company in 1890. It is supported by caissons-like concrete piers with built-up metal jackets that are aligned with the arch spandrels. The lattice railings retain some nice cast iron posts. Date of their installation is not known, but stylistically it appears to also date to the 1890s or 1900s.

The bridge carries the former Newark and Mount Pleasant Turnpike, chartered in 1806, over the Rockaway River at a point between the upper and lower mill ponds. Both dams are still extant, while the iron mills have been adapted to lighter industrial uses. The area does not retain its 19th century character and thus does not have historic district potential. There are numerous 20th-century intrusions.

Historical and Technological Significance: Although the original date of construction and the contractor of the 3-span stone arch bridge are unknown, the span appears to date to ca. 1840, Rockaway's proto-industrial era that was dominated by water-powered forging and rolling industries. The ca. 1840 bridge is one of the more complete early stone arch bridges in the county. Two modifications to the span, the 1905 widened with a concrete extension to accommodate the Morris County Traction Company's operation and the 1890 installation of a sidewalk supported on caisson-type built-up metal jacket piers, are technologically significant details in their own right, and they contribute to the technological importance of the bridge (Criterion C).

The 1890 stringer sidewalk on supported on caissons-like concrete-filled piers with built-up metal jackets was built by the Riverside Bridge Company of Paterson, NJ. This sidewalk arrangement is one of two such surviving examples in Morris County. The other sidewalk supported on caisson-like piers is at the North Sussex Street bridge over the Rockaway River in Dover (1401021), and it was built by the Riverside Bridge Company in 1886. Each sidewalk was built to provide safe pedestrian passage at a 3-span stone arch in a busy industrial center. The caisson-like piers supporting the stringer sidewalk contributes to the technological significance of the bridge.

The widening of the bridge in 1905 was one of early improvements made by the Morris County Traction Company, an electric street railway, in its 10-year (1904-1914) effort to complete its line between Elizabeth and Lake Hopatcong. The traction company was responsible for the design and expense of the widening, but plans were to be approved by the Morris County Engineer. The widening was accomplished with a concrete span, making it one of the earliest extant uses of the then-new material in the county. The trolley ran on the new, concrete portion on the west side of the bridge.

Boundary Justification and Description: Because the bridge is individually distinguished, the boundary is limited to the span itself. The surrounding area contains some significant structures, but it does not have the integrity to be evaluated as a historic district.

PHOTO: 500:25A-28A (05/91) REVISED BY (DATE): QUAD: Dover

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1401002	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	EMMANS ROAD OVER DRAKES BROOK			FACILITY	EMMANS ROAD		
TOWNSHIP	ROXBURY TOWNSHIP						
TYPE	STRINGER	DESIGN		MATERIAL	Steel		
# SPANS	2	LENGTH	29 ft	WIDTH	34.6 ft		
CONSTRUCTION DT	1925	ALTERATION DT	1966, 1977		SOURCE	COUNTY ENGINEER	
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located in a mixed residential and commercial area of the township. To the northwest is a row of attached shops and a new machine shop, all of which bridge the stream. At the northeast corner is a 19th-century dwelling with little integrity. The bridge carries two wide lanes of traffic and two sidewalks over a fast moving stream.

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 steel stringer bridge built in 1925 on a concrete substructure has been heavily altered. It was widened in 1966, and then strengthened in 1977 when new I-beams were placed between the existing stringers. Modern heavy gauge pipe railings replace the original. The integrity of the original design has been lost as has its historical and technological significance. The bridge is one of over fifty stringer spans built before World War II that survive in Morris County.

INFORMATION

PHOTO: 508:22A-23A (06/91) REVISD BY (DATE): QUAD: Stanhope



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1401021	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	NORTH SUSSEX STREET OVER ROCKAWAY RIVER		FACILITY	NORTH SUSSEX SREET			
TOWNSHIP	DOVER TOWN						
TYPE	STONE ARCH	DESIGN	ELLIPTICAL		MATERIAL	Stone	
# SPANS	3	LENGTH	82 ft	WIDTH	39.6 ft		
CONSTRUCTION DT	1825	ALTERATION DT	1886, 1938		SOURCE	PLATT 1914 HISTORY	
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is the within Blackwell Street Historic District (National Register) where it is an undetermined resource. Adjacent to the bridge are late 19th- and early 20th-century commercial buildings. A one-story structure faced with eclectic-styled pressed metal siding is cantilevered over the northeast arch of the bridge. During the mid-19th century a steel furnace stood at this corner of the bridge and the Morris Canal crossed the Rockaway River just east of the bridge.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Individually Eligible. Listed. Blackwell Street Historic District. 05/21/1982. Contributing.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The three-span stone arch bridge of coursed random ashlar and sandstone voussoirs dates to 1825, and it is historically associated with the Morris Canal & Banking Company. It is thus a contributing resource to the historic district. Although altered several times (west sidewalk carried on caissons added in 1886: east cantilevered sidewalk and concrete balustrades added in 1938), the original arches are discernible. The span appears to be the oldest documented stone arch bridge in the county.

INFORMATION

Bibliography:
 Platt, C. Dover History. 1914.
 Beers, F.W., Ellis, A.D., & Soule, G.G.. Atlas of Morris County, 1868.
 Robinson, E. Robinson's Atlas of Morris County, 1887.
 Riley, B. and Sellmer, G. "The Jackson Letter," North Jersey Highlander, 1991.
 Kalata, B.N., A Hundred Years a Hundred Miles, 1983.
 Sanborn Insurance Map of Dover. 1886, 1890, 1896.

Physical Description: The 35'-wide three-span stone arch bridge of local, coursed ashlar stone with red sandstone voussoirs was originally constructed in 1825 to carry two lanes of traffic. The west sidewalk, a separate stringer structure supported on concrete-filled riveted metal caissons, was added in 1886. The sidewalk was built by the Riverside Bridge Company, and the caissons are aligned with the mid-stream arch spandrels. The east sidewalk, a single-span stringer, is a 1938 replacement for an earlier sidewalk from which stonework pads for piers remain on the downstream side at the intermediate bases of the arches. The stone arch bridge and the two wide sidewalks appear as a unified whole from the roadway because of the 1938 reinforced concrete balustrades with rectangular piercing and plain pylons which form matching barriers on both sidewalks.

Historical and Technological Significance: The three-span stone arch bridge on North Sussex Street, the oldest surviving bridge in Dover, is located within the National Register-listed Blackwell Street Historic District which is recognized as significant in the area of transportation. Dover is a commercial center that grew around the water power of the Rockaway River, the abundant iron in the surrounding hills, and the transportation base of the Morris Canal. The bridge was built in 1825 by local contractors for the Morris Canal & Banking Company, builder of the Morris Canal which was complete here in 1826. The bridge is unrated in the 1982 National Register nomination, but it is evaluated as a contributing resource to the district based on its historical associations, date of construction, and state of preservation (Criterion C).

The first stretch of the canal to open in 1826 was the four-mile stretch between Dover and Rockaway. That section used water from the Rockaway River. Just east of North Sussex Street, the canal crossed the Rockaway River, passing through guard locks at each side of the river. At this time the old turnpike bridge on what is now Warren Street, west of North Sussex Street, was abandoned and North Sussex Street became the only river crossing in Dover.

While the stone arch is not technologically innovative, being used for centuries prior, the significance of the North Sussex Street Bridge is that its construction coincides with the birth of Dover as an industrial and commercial center. Before the Morris Canal, Dover was a hamlet with less than a dozen houses. But with a sizeable iron industry built along the Rockaway River and using charcoal as fuel, by the middle of the 19th century, only twenty-five years after the opening of the canal, Dover had become one of the four largest towns in Morris County. It remains a major commercial and population center.

Also of significance is the 1886 stringer sidewalk, which was debated heavily by the Board of Freeholders for several months. Several members did not feel that the Board was responsible for providing and maintaining footbridges. However, due to the heavy industrial traffic on the bridge, the Board voted in favor of pedestrian safety. The sidewalk is supported on caisson-type concrete piles with built-up metal jackets, an unusual detail that is found on one other bridge from the same period in Morris County (1400976). At that bridge, which carries E. Main Street over the Rockaway River in Rockaway Township, the caisson-type pile are also used to support a sidewalk.

Boundary Description & Justification: The bridge is located within a National Register-listed historic district, so it is surrounded by contributing resources. The bridge too contributes to the historic character of the district.

PHOTO: 500:39A-42A (05/91) REVISED BY (DATE): QUAD: Dover

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1401163 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 10.63
NAME & FEATURE INTERSECTED NJ 10 OVER NJ 53 **FACILITY** NJ 10
TOWNSHIP MORRIS PLAINS BOROUGH
TYPE STRINGER **DESIGN** **MATERIAL** Steel
SPANS 1 **LENGTH** 84 ft **WIDTH** 80 ft
CONSTRUCTION DT 1933 **ALTERATION DT** 1985 **SOURCE** PLAQUE
DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER**

SETTING / CONTEXT The bridge is located in a wooded area where a 6-lane state highway crosses a 2-lane state road. Scattered commercial structures are along the highway while a disused swim club and a 1970s condominium complex are adjacent to the bridge along the state road.

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 original superstructure was replaced with steel stringers in 1985 as part of the widening of NJ 10. The lower two-thirds of the 1933 concrete abutments were retained and reconditioned with new concrete caps. Due to the age of the superstructure, the bridge is evaluated as not historic.

INFORMATION

PHOTO: 128:5 (06/91)

REVISED BY (DATE):

QUAD: Morristown

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1401191	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0		
NAME & FEATURE INTERSECTED	STEPHENSBURG ROAD STEPHENSBURG BROOK		FACILITY	STEPHENSBURG ROAD					
TOWNSHIP	WASHINGTON TOWNSHIP								
TYPE	STRINGER	DESIGN						MATERIAL	Steel
# SPANS	2	LENGTH	29 ft	WIDTH	15.5 ft				
CONSTRUCTION DT	1917	ALTERATION DT	1950ca		SOURCE	COUNTY ENGINEER			
DESIGNER/PATENT	UNKNOWN			BUILDER	UNKNOWN				

SETTING / CONTEXT The bridge is located in a wooded rural setting contiguous to a farm with an early 20th century farmhouse and scattered outbuildings in poor condition. It is itemized in the Stephensburg Historic District, recognized by the Morris County Heritage Commission and the county Planning Board. The district is a densely developed hamlet containing a mill, dwellings, barns, and outbuildings from the mid-19th century. The bridge carries one lane of traffic across a minor watercourse.

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 Originally a single-span stringer bridge on ashlar abutments, it was changed to a 2-span bridge by the mid-20th century addition of a mid-span pier composed of concrete columns and a steel cap beam. The stone abutments and wingwalls have been capped and gunited. The most distinguishing feature are the lattice railings with some of the original well-detailed cast-iron posts. While the railings are noteworthy, the span itself is not technologically innovative nor an early example of its type.

INFORMATION

PHOTO: 507:23-24 (06/91)

REVISED BY (DATE):

QUAD: Hackettstown

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1401229	CO	MORRIS	OWNER	COUNTY	MILEPOINT	0.0
NAME & FEATURE INTERSECTED	SCHOOLEY'S MOUNTAIN ROAD (CR 517) OVER SOUTH BRANCH RARITAN RIVER			FACILITY	SCHOOLEY'S MOUNTAIN ROAD (CR 517)		
TOWNSHIP	WASHINGTON TOWNSHIP						
TYPE	STONE ARCH	DESIGN	ELLIPTICAL			MATERIAL	Stone
# SPANS	4	LENGTH	106 ft	WIDTH	23 ft		
CONSTRUCTION DT	1876	ALTERATION DT					
DESIGNER/PATENT						SOURCE	NATIONAL REG. NOMIN.
						BUILDER	

SETTING / CONTEXT The bridge is located in the heart of the German Valley Historic District comprised of 76 residential, industrial, commercial, and public buildings dating from the late 18th through the early 20th centuries. The bridge is inventoried as a contributing structure to the district. It carries a narrow two-lane road over a major watercourse.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Not Individually Eligible. Listed. German Valley Historic District. 07/14/1983. Contributing.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The random-coursed stone elliptical arch bridge with a slight vertical profile is characteristic of the stonework that is strongly associated with the German Valley area. It is the longest and only 4-span stone arch bridge in the county. The west side is the better preserved with its low parapet with capstones. Alterations to the east side include a concrete replacement parapet, steel guiderail, and a steel stringer sidewalk installed in 1976. However, the integrity of the bridge survives.

INFORMATION

PHOTO: 507:18-19 (06/91)

REVISED BY (DATE):

QUAD: Hackettstown



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1401250	CO	MORRIS	OWNER	COUNTY	MILEPOINT
NAME & FEATURE INTERSECTED	HACKLEBARNEY ROAD OVER BLACK RIVER		FACILITY	HACKLEBARNEY ROAD		
TOWNSHIP	CHESTER TOWNSHIP					
TYPE	STONE ARCH	DESIGN	ELLIPTICAL		MATERIAL	Stone
# SPANS	2	LENGTH	21 ft	WIDTH	No Data	
CONSTRUCTION DT	1885	ALTERATION DT			SOURCE	COUNTY RECORDS
DESIGNER/PATENT	UNKNOWN		BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located in a bucolic 19th-century village setting on an unpaved road bordering Black River Park, an undeveloped county park. A 3 1/2-story stone grist mill is at the northwest corner of the bridge and the mill's tail race passes under one of its spans. The bridge is a contributing structure in the Lower Hacklebarney Historic District, recognized by the Morris County Heritage Commission. The district has National Register potential.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Individually Eligible. Potential Historic District. Contributing.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The 2-span stone arch bridge with arches of unequal dimensions is the only surviving bridge in the county built to accommodate a tail race. The ca. 1830 stone grist mill abuts the northwest wingwall of the bridge. The bridge is well preserved, save for gunited intrados. The original 4" slate capstones with "iron staples" finish the parapets. The mill and bridge are individually distinguished because of their age and condition, and they are significant elements in a potential historic district.

INFORMATION Bibliography:
 Guter, R. Morris County Historic Sites Survey. 1986.
 Greenidge, F. Chester, New Jersey, A Scrapbook of History. 1974.

Physical Description: The 2-span rubble-coursed with ring stones stone arch bridge is part of a picturesque 19th-century hamlet that grew around the water power provided by the Black River. The 21'-long main span of the bridge accommodates the river while a smaller span of approximately 10' crosses the mill tail race. The ca. 1830 rubble-coursed stone mill forms the northwest wingwall of the bridge. The parapets are of linearly varying height, to a maximum of 3' in the center and diminishing to grade level at the ends. Capstones of 4" slate are connected with iron staples. The southwest parapet is tied into a retaining wall at right angles to the bridge along the west bank of the river.

The intrados of each arch was gunited in 1981.

The integrity of setting that the bridge enjoys is remarkable, and it contributes greatly to the significance of the structure.

Historical and Technological Significance: The undocumented ca. 1830 2-span stone arch bridge is an integral part of the bucolic hamlet of Lower Hacklebarney with its early 19th-century houses, ca. 1830 stone grist mill to which the bridge is contiguous, stone dam, and mill pond. While the mill and bridge are individually significant as well-preserved examples of their structural types, made all the more significant because they were, it is believed, built and worked in tandem, they are also contributing structures in a larger context; the well-preserved nuclear village (Criterion C). The settlement, composed of seven (7) structures, is a good representative example of the small population centers that developed around water-powered mills in the early and middle 19th century. The type and style of buildings clearly reflect the economic basis for the settlement. The architectural significance of lower Hacklebarney is enhanced by the picturesque quality of its unspoiled setting.

While the technology reflected in the stone arch bridge is not innovative for ca. 1830, the incorporation of the a span into the grist mill structure is not common. The mill shows no alterations or additions, but the arches of the bridge were gunited, and the spandrel walls were repointed in a sensitive manner. The dirt road is paved over the deck of the bridge. The bridge ranks as one of the several historically significant stone arch span in Morris County, which has a strong stone arch bridge tradition. It is evaluated as a noteworthy example of the bridge type, in part, because of its physical and historical connection with the mill and the surrounding village.

Boundary Description and Justification: The bridge is one element in an architecturally significant setting that appears to meet the criteria for inclusion in the National Register as a historic district. Thus the bridge, its wingwalls, contiguous stone grist mill and surrounding land are evaluated as significant. Defining the boundaries of the potential historic district are beyond the scope of this survey.

PHOTO: 515:5A-7A (07/91) REVISED BY (DATE): QUAD: Chester

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1402150	CO	MORRIS	OWNER	NJDOT	MILEPOINT	13.85
NAME & FEATURE INTERSECTED	NJ 10 OVER MALAPARDIS BROOK			FACILITY	NJ 10		
TOWNSHIP	HANOVER TOWNSHIP						
TYPE	RIGID FRAME	DESIGN		MATERIAL	Reinforced Concrete		
# SPANS	1	LENGTH	25 ft	WIDTH	69 ft		
CONSTRUCTION DT	1932	ALTERATION DT		SOURCE	INSCRIPTION		
DESIGNER/PATENT	NJ STATE HWY DEPT BRIDGE DIV			BUILDER			

SETTING / CONTEXT The bridge is located in a wooded section between commercial areas on a state highway. It carries four lanes of traffic separated by a Jersey-type barrier plus two shoulders and a narrow grass band across a minor watercourse. The bridge was part of a new alignment in 1932 when the state highway, which generally followed the old Newark and Mt. Pleasant Turnpike, bypassed the business district of Whippany.

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 bridge consisting of a reinforced concrete slab on concrete abutments is representative of short bridge in the state highway projects of the 1930s. The concrete balustrade with continuous piercing set between plain posts, incised with the highway route number and date are also common to the period. The bridge is neither technologically nor historically significant. It is one of over 15 slab bridges in Morris County.

INFORMATION

PHOTO: 511:13A-14A (06/91)

REVISED BY (DATE):

QUAD: Morristown

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1402151	CO	MORRIS	OWNER	NJDOT	MILEPOINT	0.0	
NAME & FEATURE INTERSECTED	PARSIPPANY ROAD (CR 511) OVER NJ 10			FACILITY	PARSIPPANY ROAD (CR 511)			
TOWNSHIP	HANOVER TOWNSHIP							
TYPE	STRINGER	DESIGN	ENCASED			MATERIAL	Steel	
# SPANS	1	LENGTH	83 ft	WIDTH	30 ft			
CONSTRUCTION DT	1931	ALTERATION DT					SOURCE	INSCRIPTION
DESIGNER/PATENT	NJ STATE HWY DEPT BRIDGE DIV				BUILDER			

SETTING / CONTEXT The bridge is located in a wooded section where a county road crosses a state highway with limited access. Properties along the highway are commercial. The 19th- and 20th-century structures along the county road are either residential or offices of residential character, enhanced by the tree-lined road. The bridge is part of the Whippany bypass of the NJ 10 project of the 1930s and carries two lanes of traffic plus two sidewalks over a four-lane highway.

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 is supported on a concrete substructure. The paneled concrete abutments are incised with the date and highway number, while posts with Moderne detailing unite the sub- and superstructure which is finished with concrete balustrades. The bridge is a representative example of the handsome spans the state was building during its ambitious 1920-1930s highway expansion programs. Although well preserved, the bridge is not technologically distinctive.

INFORMATION

PHOTO: 511:7A-8A (06/91)

REVISED BY (DATE):

QUAD: Morristown

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1402152	CO	MORRIS	OWNER	NJDOT	MILEPOINT	15.7
NAME & FEATURE INTERSECTED	NJ 10 OVER WHIPPANY RIVER			FACILITY	NJ 10		
TOWNSHIP	HANOVER TOWNSHIP						
TYPE	STRINGER	DESIGN	ENCASED			MATERIAL	Steel
# SPANS	2	LENGTH	91 ft	WIDTH	50 ft		
CONSTRUCTION DT	1931	ALTERATION DT				SOURCE	PLAQUE
DESIGNER/PATENT	NJ STATE HWY DEPT BRIDGE DIV			BUILDER			

SETTING / CONTEXT The bridge is located in a commercial area of a heavily travelled state highway at the junction with a major county road. A large corporate headquarters at the intersection and a golf driving range is along the river. The early 1930s highway follows the route of the Newark and Mount Pleasant Turnpike, incorporated in 1806, and one of the early improved roads in the county. The bridge carries a 4-lane divided highway plus two sidewalks over a major watercourse.

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 two-span encased stringer bridge is supported on a concrete substructure with horizontal scoring, a common detail found on other NJ 10 and US 46 bridges from ca. 1930, as is the reinforced concrete balustrade. Paneled concrete end posts are incised with the highway number and date, also a standard state highway design. The bridge is not significant technologically or historically. It is one of over 50 Pre-World war II stringer bridges in the county.

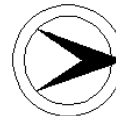
INFORMATION

PHOTO: 511:17A-20A (06/91)

REVISED BY (DATE):

QUAD: Morristown

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1404156	CO	MORRIS	OWNER	NJDOT	MILEPOINT	2.8
NAME & FEATURE INTERSECTED	NJ 15 NB OVER GREEN POND BROOK			FACILITY	NJ 15 NORTHBOUND		
TOWNSHIP	ROCKAWAY TOWNSHIP						
TYPE	T BEAM	DESIGN		MATERIAL	Reinforced Concrete		
# SPANS	1	LENGTH	45 ft	WIDTH	44 ft		
CONSTRUCTION DT	1943	ALTERATION DT		SOURCE	INSCRIPTION		
DESIGNER/PATENT				BUILDER			

SETTING / CONTEXT The bridge is located in a wooded section of a divided state highway contiguous to the U.S. Army Armament Research, Development, and Engineering Center (Picatinny Arsenal). Built as part of the state highway project, the bridge carries the brook into a rerouted channel between in the center median.

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 concrete T beam span is similar to others in the county built between 1926 and 1943 on state highways. The use of concrete for all structural and ornamental parts of the bridge is seen in many others in the state. The balustrades and incised end posts with Moderne detailing are similar to other spans on the route. The bridge has no historical or technological distinction. It is one of 8 identified T-beam span built between 1926 and 1943 on state routes in the county.

INFORMATION

PHOTO: 500:8A,516:36A (05/91)

REVISED BY (DATE):

QUAD: Dover

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1405156 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 16.95
NAME & FEATURE INTERSECTED NJ 23 OVER PEQUANNOCK RIVER, HAMBURG TPK & NYS&W RR **FACILITY** NJ 23
TOWNSHIP KINNELON BORO
TYPE THRU GIRDER **DESIGN** ENCASED **MATERIAL** Steel
SPANS 6 **LENGTH** 513 ft **WIDTH** 53.8 ft
CONSTRUCTION DT 1934 **ALTERATION DT** **SOURCE** PLAQUE
DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The viaduct carries a heavily traveled divided 4-lane state highway through a wooded area. There are no sidewalks on the bridge and a Jersey-type barrier separates the opposing lanes. At the western end of the bridge, NJ 23 picks up the route of the Paterson-Hamburg Turnpike as it progresses northwest towards High Point. The structure carries NJ 23 state highway over an exit ramp, a major watercourse, and the New York Susquehanna & Western Railroad.

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 viaduct utilizes encased thru girders with floor beams for the main span and deck girders on concrete columns for the approaches. The Moderne detailing on the posts and balustrades of the approach spans is a common 1930s state design. Although well-preserved, the span is representative in type and style of viaducts built by the state as grade crossing elimination in the 1930s and 1940s. It is not technologically innovative or historically distinctive.

INFORMATION

PHOTO: 503:30-32 (05/91)

REVISED BY (DATE):

QUAD: Wanaque

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1407150 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 21.87
NAME & FEATURE INTERSECTED US 46 OVER MILL RACE **FACILITY** US 46
TOWNSHIP WASHINGTON TOWNSHIP
TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel
SPANS 1 **LENGTH** 26 ft **WIDTH** 30.8 ft
CONSTRUCTION DT 1921 **ALTERATION DT** **SOURCE** INSCRIPTION
DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER**

SETTING / CONTEXT The bridge is located on a state highway, just east of the boundary with Warren County. To the east is undeveloped woodland while undistinguished commercial structures are to the west. The bridge carries two lanes of traffic and one sidewalk over a minor watercourse that flows out of a penstock just north of the highway. The bridge was part of the state highway project of the 1920s, carrying Route 5 over a mill race. The mill is nonextant.

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 with a concrete substructure and concrete balustrades set between plain posts incised with the date and route number is a representative example of its structural type. It is one of over 50 stringer spans in Morris County, and it has no distinguishing historical or technological features.

INFORMATION

PHOTO: 507:27-28 (06/91)

REVISED BY (DATE):

QUAD: Hackettstown

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1407151 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 22.45
NAME & FEATURE INTERSECTED US 46 EB OVER MINE BROOK **FACILITY** US 46 EASTBOUND
TOWNSHIP WASHINGTON TOWNSHIP
TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel
SPANS 1 **LENGTH** 35 ft **WIDTH** 30 ft
CONSTRUCTION DT 1921 **ALTERATION DT** 1984 **SOURCE** PLAQUE
DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER**

SETTING / CONTEXT The bridge is located in a commercial area of a state highway. Carrying two lanes of eastbound traffic, it was built as part of the state highway project for Route 5. A new bridge separated by a grass median but on common abutments carries the westbound lanes.

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 stringer bridge with a concrete balustrade set between plain posts incised with the date and highway number has been altered. The south side balustrade was demolished when the roadway was expanded from two to four lanes and a parallel west-bound right of way with a median was built in 1984. The west-bound addition is listed as a separate bridge. The altered bridge is not historically or technologically noteworthy. It is one of over 50 stringer spans in the county.

INFORMATION

PHOTO: 508:2,515:10A (06/91)

REVISED BY (DATE):

QUAD: Hackettstown

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1407153 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 22.68
NAME & FEATURE INTERSECTED US 46 EB OVER BRANCH OF MINE BROOK **FACILITY** US 46 EASTBOUND
TOWNSHIP WASHINGTON TOWNSHIP
TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel
SPANS 1 **LENGTH** 38 ft **WIDTH** 30 ft
CONSTRUCTION DT 1921 **ALTERATION DT** 1988ca **SOURCE** NJDOT
DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER**

SETTING / CONTEXT The bridge is located in a sparsely developed section of a state highway where the eastbound and west bound lanes are separated by a wide wooded median. A modern veterinary clinic is located in the median east of the bridge and a single residential building is on the south side of the highway. The bridge carries two lanes of eastbound traffic over a minor watercourse.

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 on a concrete substructure bears little resemblance to its original design. The Jersey-barrier like parapets on both sides with steel guiderail bolted to the inside face replace the original balustrade. The short bridge has lost its integrity of design. While the original encased stringers and substructure are intact, the modifications render the span, an example of a common pre-World War II bridge type, historically and technologically undistinguished.

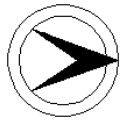
INFORMATION

PHOTO: 515:14A-15A (06/91)

REVISED BY (DATE):

QUAD: Hackettstown

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1409155 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 37.95
NAME & FEATURE INTERSECTED US 46 OVER MORRISTOWN LINE, WEST **FACILITY** US 46
BLACKWELL STREET & RIVER
TOWNSHIP DOVER TOWN
TYPE THRU GIRDER **DESIGN** ENCASED **MATERIAL** Steel
SPANS 8 **LENGTH** 592 ft **WIDTH** 40 ft
CONSTRUCTION DT 1929 **ALTERATION DT** **SOURCE** NJDOT
DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** T.J. FOLEY

SETTING / CONTEXT The Dover Viaduct or Cutoff was built as part of the state highway project in the 1920s, and it carries four lanes of traffic and two sidewalks over the river, railroad, and a road. It is at the edge of the Dover business district and is contiguous to a large, casually landscaped park.

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 eight-span viaduct is composed of deck girders for the approach spans and thru girders for the main spans, all of which are concrete encased. The bridge is representative of multiple-span highway bridges of the 1920s and 1930s with a concrete substructure and open geometric concrete balustrades. It is similar in type and style to other viaducts designed by the state highway department in the 1930s, and it is not historically or technically significant.

INFORMATION

PHOTO: 500:31A-32A (05/91)

REVISED BY (DATE):

QUAD: Dover

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1409156	CO	MORRIS	OWNER	NJDOT	MILEPOINT	38.16		
NAME & FEATURE INTERSECTED	US 46 OVER NJ 15 & DOVER & ROCKAWAY RAILROAD			FACILITY	US 46				
TOWNSHIP	DOVER TOWN								
TYPE	THRU GIRDER	DESIGN	ENCASED				MATERIAL	Steel	
# SPANS	2	LENGTH	165 ft	WIDTH	40 ft				
CONSTRUCTION DT	1929	ALTERATION DT						SOURCE	PLAQUE
DESIGNER/PATENT	NJ STATE HWY DEPT BRIDGE DIV					BUILDER			

SETTING / CONTEXT The bridge, known as the Dover Cutoff, is located in a lightly wooded, mixed-use area in a highway setting. Residences are late 19th century while commercial buildings are mainly mid-20th century. Four lanes of US 46 traffic are carried across 2 lanes of NJ 15 and a disused railroad. The Dover Cutoff of NJ 6, as the road was designated in 1927, bypassed the central business district with a new alignment for through traffic.

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 thru girder with floor beams bridge is supported by a concrete substructure. Cantilevered sidewalks are enclosed by a metal railing set in concrete posts. The 165'-long 2-span structure is well preserved, but it is simply a representative example of its frequently used bridge type. It is not technologically innovative or distinctive and is one of over five thru girder spans built in the county in the late 1920s.

INFORMATION

PHOTO: 500:29A-30A (05/91)

REVISED BY (DATE):

QUAD: Dover

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1409158	CO	MORRIS	OWNER	NJDOT	MILEPOINT	42.35	
NAME & FEATURE INTERSECTED	US 46 OVER ABANDONED BRANCH MORRISTOWN LINE		FACILITY	US 46				
TOWNSHIP	DENVILLE TOWNSHIP							
TYPE	SLAB	DESIGN					MATERIAL	Reinforced Concrete
# SPANS	1	LENGTH	84 ft	WIDTH	320 ft			
CONSTRUCTION DT	1928	ALTERATION DT					SOURCE	NJDOT
DESIGNER/PATENT	NJ STATE HWY DEPT BRIDGE DIV				BUILDER			

SETTING / CONTEXT The bridge carries a 4-lane state highway over the abandoned right-of-way of the DL&W RR. The road is the 1927 realignment of an 18th century road the state developed as Route 5. The historic 2-lane wide alignment is maintained through the center of old Denville approximately 400 yards east of the bridge. The area around the bridge is commercial. The most significant structure is a Art Moderne concrete factory on the southeast side.

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 heavily skewed slab bridge was built in 1927 to accommodate road realignment. The span incorporates in its northeasterly abutment a portion of the stone retaining wall that lined the depresses railroad roadbed. Other abutments are concrete, as are the unmatched paneled parapets that mark the limits of the bridge. No plans for the 1927 bridge were located, but right-of-way plans indicate that the span was constructed at one time. It is not historically or technologically distinguished.

INFORMATION

PHOTO: 510:18-19 (06/91) REVISD BY (DATE): QUAD: Boonton

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1410150 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 43.05
NAME & FEATURE INTERSECTED US 46 OVER NJ 53 **FACILITY** US 46
TOWNSHIP DENVILLE TOWNSHIP
TYPE STRINGER **DESIGN** **MATERIAL** Steel
SPANS 2 **LENGTH** 94 ft **WIDTH** 61 ft
CONSTRUCTION DT 1941 **ALTERATION DT** 1987 **SOURCE PLANS**
DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER**

SETTING / CONTEXT The bridge is located on a state highway where it crosses a state road. The bridge is at the edge of the central business district and forms a boundary between the old business area and a newer "strip" shopping center. Along the highway is a wooded area immediately adjacent to the bridge, but modern commercial structures are just beyond 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 skewed stringer superstructure installed in 1987 was set on a pilastered substructure built as part of the NJ 15 and NJ 6 highway projects of 1941. The concrete abutments are inscribed with a plaque noting the date and route number.

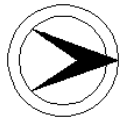
INFORMATION

PHOTO: 510:20,23 (06/91)

REVISED BY (DATE):

QUAD: Boonton

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1410157 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 50.35
NAME & FEATURE INTERSECTED US 46 OVER ROCKAWAY RIVER **FACILITY** US 46
TOWNSHIP MONTVILLE TOWNSHIP
TYPE STRINGER **DESIGN** ENCASED **MATERIAL** Steel
SPANS 3 **LENGTH** 129 ft **WIDTH** 80 ft
CONSTRUCTION DT 1940 **ALTERATION DT** **SOURCE** PLAQUE
DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER**

SETTING / CONTEXT The bridge is located in a commercial area of a busy state highway where structures are predominantly undistinguished mid- to late-20th century businesses. The bridge carries four lanes of traffic, two shoulders, and two sidewalks across a major watercourse, just downstream of a small island.

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

SUMMARY Built as part of the NJ 6 highway project, the three-span encased stringer bridge has a concrete substructure and standard-design balustrades between plain posts. While the bridge is unaltered, it is a representative example of the most common pre-World War II bridge type in the state. It is not historically or technologically distinguished.

INFORMATION

PHOTO: 503:2, 504:3 (05/91)

REVISED BY (DATE):

QUAD: Caldwell



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1416152	CO	MORRIS	OWNER	NJDOT	MILEPOINT	45.77
NAME & FEATURE INTERSECTED	US 202 OVER WHIPPANY RIVER			FACILITY	US 202		
TOWNSHIP	MORRISTOWN TOWN			DESIGN	ELLIPTICAL		
TYPE	ARCH	LENGTH	52 ft	WIDTH	56.7 ft		
# SPANS	1	DESIGN	ELLIPTICAL			MATERIAL	Brick
CONSTRUCTION DT	1891	ALTERATION DT	1922			SOURCE	INSCRIPTION/PLANS
DESIGNER/PATENT	UNKNOWN			BUILDER	T.J. ALLEN (1891)		

SETTING / CONTEXT The bridge is located within the Speedwell Village Historic District that includes the nonextant Speedwell Ironworks (1808-1873), two 19th century houses, and the factory where the telegraph was invented. It carries a 2-lane highway, shoulders, and sidewalks over a river. It replaced a 3-span stone arch that remains upstream between this bridge and the Speedwell Lake dam. Construction of the present bridge required a major regrading to eliminate steep approaches and sharp bends.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Individually Eligible. Listed. Speedwell Village Historic District. 11/20/1970. Contributing.
CONSULT DOCUMENTS SHPO Letter 03/12/01

SUMMARY The skewed brick arch bridge has handsome dressed ashlar spandrel walls and ring stones. The intrados was gunited, but much of it has spalled. The bridge was widened on the downstream side about 20' in 1922, but the concrete extension was finished with a matching ashlar spandrel wall. Despite the alteration, the original section is relatively well preserved and ranks as one of the largest and most impressive brick arch spans in the state. It is evaluated as technologically significant, and is individually eligible for listing in the National Register of Historic Places under Criterion C. It is also a contributing element to the National Register listed Speedwell Village Historic District.

INFORMATION

Bibliography:
 Minutes, Morris County Board of Chosen Freeholders; July 12, 1882; May 11, 1887; July 8, 1891; August 12, 1891.
 Supplement to The True Democratic Banner. May 5, 1892.
 "Stone Span in 64th Year." Morristown Daily Record, (undated clipping, ca. 1955, Morristown Library).
 "Freeholders Advertising Bridge Work 114 Years Ago For Speedwell Job." Morristown Daily Record. Dec. 18, 1937.
 "Early Days of Speedwell Dam and Park Recalled." Morristown Daily Record, Jan. 13, 1938.
 ONJH. National Register File: Morristown Multiple Resource Nomination, 1983.

Physical Description: The handsome, well-proportioned skewed 52'-long single-span brick arch bridge has rusticated random-course ashlar spandrel walls finished with voussoirs and an inscribed keystone on the upstream side. It was widened with an approximately 20'-wide skewed reinforced concrete addition on the downstream side in 1922. The addition was also finished with a rusticated ashlar spandrel wall. Both sides have stone parapets capped with large rectangular blocks of rusticated granite. In the inside face of the downstream parapet is a stone tablet documenting the bridge committee. The intrados of the brick section of the span was gunited, but much of the coating has spalled off. The brick arch is separating from the stone spandrel wall.

Historical and Technological Significance: The large, impressive 1891 brick arch span, located just below an abandoned three-span stone arch bridge dating from 1824 and upstream from Speedwell Lake dam (rebuilt in 1938 as a W.P.A. project), ranks as one of the largest and most complete brick arch bridges in the state. The lake was once a power source for the Speedwell Iron Works, a major local industry owned by Stephen Vail, a prominent citizen and county judge. The bridge is an unrated resource located within the boundaries of the Speedwell Village Historic District that includes the lake, foundations of industrial structures, the extant Vail Mansion, and various out buildings (Criteria A, C).

The bridge was built in 1891 as part of the Speedwell grade improvement that eased the road grade at both ends of the bridge, a project that had been discussed by the Freeholders for nine years before the bridge contract was awarded. At the time of construction, the old bridge was still in service, but was subsequently damaged severely when the timber cribbing dam failed in a 1917 flood.

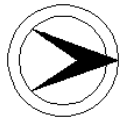
When the old road was incorporated into the state highway system, the 1891 bridge has been widened in 1922. The reinforced concrete extension was designed by the New Jersey State Highway Department Bridge Division, and it was finished to resemble the historic span. The historic alteration does not detract from the historical or technological significance of the original portion of the span, which is one of the largest brick arch bridges in the state.

The bridge is also important historically since it dates from the gilded age of Morristown, when wealthy New Yorkers vacationed in large mansions and the present commercial structures in town were built to accommodate the carriage trade. Included in this building boom are six large stone churches and the courthouse wall, also built by local stone masons.

Boundary Description and Justification: The bridge is located within a historic district that is listed in the National Register of Historic Places. Therefore, the span and its surroundings have been evaluated as eligible.

PHOTO: 501:13-15,128:3-4 (06/91) REVISED BY (DATE): QUAD: Morristown

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1417154 **CO** MORRIS **OWNER** RAILROAD **MILEPOINT** 16.61
NAME & FEATURE INTERSECTED HIGH BRIDGE BRANCH RAILROAD OVER US 206 **FACILITY** HIGH BRIDGE BRANCH
TOWNSHIP MOUNT OLIVE TOWNSHIP
TYPE THRU GIRDER **DESIGN** **MATERIAL** Steel
SPANS 1 **LENGTH** 88 ft **WIDTH** 16 ft
CONSTRUCTION DT 1929 **ALTERATION DT** **SOURCE** NJDOT
DESIGNER/PATENT CNJ RR OFFICE OF ENGINEER **BUILDER** PHOENIX BRIDGE COMPANY

SETTING / CONTEXT Located in a commercial section on a state highway, the bridge serves as a billboard. Late-20th-century "strip malls" and condominium offices are along the highway close to the bridge which carries the single-tracked, disused High Bridge Branch over US 206. Steel guidrails prohibit usage of the two sidewalks along US 206.

1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Not Individually Eligible. High Bridge Division of Central RR of NJ Historic District, Eligible, May contribute.
CONSULT DOCUMENTS SHPO Opinion 06/29/89, Finding 06/29/92, Letter 6/30/95.

SUMMARY The skewed built-up riveted thru girder bridge has a ballasted concrete deck and knee-high brick curbing. The span is supported on concrete abutments. Overall, the bridge is a representative example of a common bridge type, and it is not technologically innovative or historically distinguished. Phoenix Bridge Company of Phoenixville, PA was a major 19th- and early-20th century manufacturer of thru girder as well as other types of spans.

INFORMATION

PHOTO: 506:34-35 (06/91)

REVISED BY (DATE):

QUAD: Chester

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1426151	CO	MORRIS	OWNER	NJDOT	MILEPOINT	0.93
NAME & FEATURE INTERSECTED	NJ 183 OVER MUSCONETCONG RIVER			FACILITY	NJ 183		
TOWNSHIP	NETCONG BOROUGH						
TYPE	T BEAM	DESIGN		MATERIAL	Reinforced Concrete		
# SPANS	1	LENGTH	28 ft	WIDTH	40.2 ft		
CONSTRUCTION DT	1926	ALTERATION DT		SOURCE	PLAQUE		
DESIGNER/PATENT	CORNELIUS VERMEULE,CNSLT.ENG.			BUILDER	JOHN W. HELLER CO.		

SETTING / CONTEXT Located just below the concrete dam and spillway of Lake Musconetcong, the bridge is contiguous to a lake-front park on the Stanhope side. Both the bridge and dam were built by the state as part of the abandonment of the Morris Canal in the mid-1920s, when the canal was systematically dismantled after 100 years of service. The bridge carries two wide lanes of traffic and two sidewalks over a major watercourse. The area surrounding the lake is a public park.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** Yes
CONSULT STATUS Not Individually Eligible. Potentially eligible Historic District. Contributing.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The reinforced concrete T beam bridge is finished on a unornamented, utilitarian style. The steel picket fence along the spillway of the Lake Musconetcong dam replaced a waist-high solid concrete parapet early in the life of the structure. The original parapet remains on the downstream side. While the bridge is technologically undistinguished, it is historically significant as one of the major structures built as part of the ambitious Morris Canal abandonment directed by engineer C. Vermeule.

INFORMATION Bibliography:
 Vermeule, C. Jr. Morris Canal and Banking Company Final Report of Consulting and Directing Engineer. 1929.
 Morris County Engineer; Bridge File.

Physical Description: The reinforced concrete T-beam bridge is one element in a larger reinforced concrete dam and spillway at the bottom of Lake Musconetcong, which forms the boundary between Morris and Sussex Counties. The dam has a straight spillway to a concrete floor, where the water flows west and then south under the short bridge located below the brick-faced gatehouse with concrete quoins. The long spillway also serves as an overflow. The 4' paneled parapet of reinforced concrete on the south side of the bridge is original. The long steel picket fence along the spillway is a replacement for a similar concrete parapet early in the history of the dam and bridge, to enhance the view of the lake from the roadway.

Historical and Technological Significance: Located at the bottom of Lake Musconetcong, the bridge, dam, gatehouse, and surrounding park were part of the ambitious 1924-1928 Morris Canal abandonment project. The project, which closed and disposed of the former canal 88-mile long right-of-way and all the structures there unto pertaining, was designed and directed by Cornelius C. Vermeule, a consulting engineer from East Orange, New Jersey, who was hired by the Morris Canal and Banking Company Board of Directors. The "Morris Canal Abandonment Acts" passed by the New Jersey legislature in 1924 specified that the canal reservoirs, like Lake Musconetcong, would be dedicated to public use, but that they had to be fitted with dams and sluice gates. Vermeule designed the new water retention facility of reinforced concrete to ensure its permanence.

Lake Musconetcong was created as a reservoir for the Morris Canal, whereas other water sources were already existing bodies that were dammed higher to provide more water. The canal crossed the lake and entered a lock about 50' west of the current gatehouse. Over the active life of the canal (1824-1924), summer cottages were built around the lake shore. When the canal was abandoned, the State felt an obligation to retain property values along the lake front.

While the bridge is not technologically innovative, it is significant as a Morris Canal abandonment structure. Plaques on the gatehouse give brief details of the dam and history of the Morris Canal. It is one of two bridges built in Morris County as part of the canal abandonment project 1924-1928.

Boundary Description and Justification: The bridge is one part of a larger water retention facility that includes, but is not limited to, a gatehouse, dam, spillway, and surrounding park. The structure and surrounding park are historically significant because of they were developed as part of a historic and important regional improvement campaign. Therefore, the entire water retention facility and the body of water and its shore are evaluated as eligible.

PHOTO: 508:32A-36A (06/91 JPH (5/96)) REVISED BY (DATE): QUAD: Stanhope

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1430150 **CO** MORRIS **OWNER** NJDOT **MILEPOINT** 0.001
NAME & FEATURE INTERSECTED BLOOMFIELD AVENUE (NJ 159) WB OVER US 46 EB **FACILITY** BLOOMFIELD AVENUE (NJ 159) WESTBOUND
TOWNSHIP MONTVILLE TOWNSHIP
TYPE THRU GIRDER **DESIGN** ENCASED **MATERIAL** Steel
SPANS 1 **LENGTH** 98 ft **WIDTH** 26 ft
CONSTRUCTION DT 1940 **ALTERATION DT** **SOURCE** INSCRIPTION
DESIGNER/PATENT NJ STATE HWY DEPT BRIDGE DIV **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge is located in a highway setting and carries two westbound lanes of Bloomfield Avenue (NJ 159) over the two east-bound lanes of US 46, at the junction of the two highways. It facilitates the merger of the Bloomfield Avenue traffic into US 46, originally built as NJ 6. Undistinguished commercial structures are scattered along both roads.

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 well-detailed skewed encased thru girder bridge on a concrete substructure is a representative example of the designs the state highway department generated around 1940. It is stylistically similar to grade-crossing elimination overpasses in Middlesex and Somerset counties. The abutments are finished with low-relief Moderne pilasters and entablatures, and the girders have chevron decoration. The bridge is not an uncommon State design or innovative type.

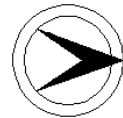
INFORMATION

PHOTO: 504:11-14 (05/91)

REVISED BY (DATE):

QUAD: Caldwell

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1430153	CO	MORRIS	OWNER	NJDOT	MILEPOINT	0.32
NAME & FEATURE INTERSECTED	BLOOMFIELD AVENUE (NJ 159) WB OVER PASSAIC RIVER		FACILITY	BLOOMFIELD AVENUE (NJ 159) WESTBOUND			
TOWNSHIP	MONTVILLE TOWNSHIP						
TYPE	STRINGER	DESIGN	ENCASED		MATERIAL	Steel	
# SPANS	4	LENGTH	224 ft	WIDTH	32 ft		
CONSTRUCTION DT	1940	ALTERATION DT	1981	SOURCE	INSCRIPTION		
DESIGNER/PATENT	NJ STATE HWY DEPT BRIDGE DIV			BUILDER			

SETTING / CONTEXT The bridge is located in a highway setting at the boundary of Morris and Essex Counties. It is within the Great Piece Meadows, a Green Acres Project of wetlands along the Passaic River. The bridge carries a shoulder and the two westbound lanes of Bloomfield Avenue (NJ 159) over a major watercourse.

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 on a concrete substructure was altered in 1981 when the eastbound-portion of the superstructure was replaced by box beams. The eastbound section is listed as a separate structure. The concrete balustrade on the westbound span is original to 1940, but the steel guiderail attached to its inner face is a modern addition. The bridge, an example of a common bridge type, has lost its design integrity and is thus of little historical value.

INFORMATION

PHOTO: 504:15-16 (05/91) REVISIED BY (DATE): QUAD: Caldwell

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1450160	CO	MORRIS	OWNER	RAILROAD	MILEPOINT	0.0		
NAME & FEATURE INTERSECTED	ROCKAWAY ROAD (CR 513) OVER DOVER & ROCKAWAY RR			FACILITY	ROCKAWAY ROAD (CR 513)				
TOWNSHIP	ROCKAWAY TOWNSHIP								
TYPE	STRINGER	DESIGN	ENCASED				MATERIAL	Steel	
# SPANS	1	LENGTH	23 ft	WIDTH	33 ft				
CONSTRUCTION DT	1916	ALTERATION DT						SOURCE	PLANS/INSCRIPTION
DESIGNER/PATENT	CNJ RR OFF OF CHIEF ENGINEER					BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge marks the transition from a wooded area of mid-20th-century homes to an undistinguished industrial area on the outskirts of Dover. It carries two lanes of traffic over a lightly used railroad. The abutments were built prior to 1916. The Morris County Traction County was involved with the improvement of this crossing at some point prior to 1916. Plans indicate that prior to 1916 a narrow stringer bridge was at this location.

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 overpass is carried on abutments of rusticated stone that were widened on both sides with concrete extensions in 1916, when the present stringers were installed. Curiously the westernmost two stringers are not encased, but there is not data to indicate that the 8-stringer bridge was widened. The 1916 metal fence-like railing survives on the west side while the east side railing is a replacement. The 1916 bridge is not technologically nor historically distinguished.

INFORMATION

PHOTO: 516:25A-26A (12/91)

REVISED BY (DATE):

QUAD:



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1463163	CO	MORRIS	OWNER	STATE AGENCY	MILEPOINT	29.6
NAME & FEATURE INTERSECTED	MORRIS AVENUE OVER ABANDONED IRON WORKS SPUR		FACILITY	MORRIS AVENUE			
TOWNSHIP	BOONTON TOWN						
TYPE	STRINGER	DESIGN	JACK ARCH (CONCRETE)			MATERIAL	Steel
# SPANS	1	LENGTH	40 ft	WIDTH	21 ft		
CONSTRUCTION DT	1905	ALTERATION DT			SOURCE	COUNTY RECORDS	
DESIGNER/PATENT	UNKNOWN		BUILDER	WEST VA. BRIDGE & CONST.			

SETTING / CONTEXT The bridge is located in a wooded section of a formerly industrial town of Boonton. To the south is a low-density residential area and to north, adjacent to the bridge, is an abandoned freight yard and the 1909 Delaware, Lackawanna & Western RR station, currently used as a warehouse. The bridge carries two lanes of traffic and two sidewalks over the abandoned railroad right-of-way that was the main line to Boonton until the DL&W changed the route about 1909.

1995 SURVEY RECOMMENDATION Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Individually Eligible. Potentially eligible DL&W Boonton Line Historic District. Contributing.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The stringer bridge with concrete jack arches replaced an earlier structure, for which the high rusticated stone abutments and wingwalls were built ca. 1875. The bridge is associated with the DL&W RR as it crosses what was until about 1909 the mainline into Boonton. It is individually technologically significant as an early and complete example of a corrugated metal lined concrete jack arch. The pipe railings with unusual cast iron posts with ball finials are well preserved. The bridge was part of the ca. 1905-1910 realignment of the DL&W route into Boonton.

INFORMATION Bibliography:
Darnell, Victor. Directory of American Bridge-Building Companies 1840-1900. 1984.
Morris County Freeholders Minutes. June 14, 1905; Dec. 13, 1905.

Physical Description: The 1905 40'-long steel stringer and concrete jack arch superstructure is supported on earlier high ashlar abutments. The jack arches retain the corrugated pattern of the metal forms used in their construction. Tie rods pass through the arches and stringers and are connected to the fascia stringers by nuts. Utility pipes are carried under two bays of the bridge. As well preserved as the underside of the span is the upper level with its original three rail pipe railing with cast posts finished with ball finials. The concrete deck has been covered by an bituminous concrete wearing surface.

Historical and Technological Significance: One of two steel stringer bridges with concrete jack arches identified in Morris County, the 1905 one that carries Morris Avenue over the Delaware Lackawanna & Western Railroad's spur to its Boonton freight station, ranks as the earliest example of its type in the county and one of the most complete in the region (Criterion C). Jack arches, placed between the stringers, were a bridge construction detail introduced in the 1880s in brick to assist with distribution of live load and formed an integral part of the bridge deck. By about 1905 concrete, with both a smooth or corrugated surface, was replacing brick, and by about 1914, the use of jack arches declined. Stringer bridges with jack arches from the 1885-1915 era are relatively common in northern New Jersey. What distinguishes this example as being technologically noteworthy is its date of construction and complete state of preservation. With its original pipe railings, which are also typical of the period, it is a well-preserved example of a bridge building technology that was common in the early decades of this century (Criterion C).

The bridge was built for Morris County by the West Virginia Bridge & Construction Company at a cost of \$450.00 (Morris County Freeholders Minutes, 6/14/1905). The bridge building company was incorporated in Wheeling West Virginia in 1894, and it is believed to have been active until about 1906. There are several examples of the firm's work throughout New Jersey.

Boundary Description and Justification: Because the bridge stands on its own technological merits, it the span alone (superstructure and substructure) that is evaluated as eligible.

PHOTO: 503:18-19, 561:23A (05/91 JPH (5/96)) REVISED BY (DATE): QUAD: Boonton

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE # 1464151 **CO** MORRIS **OWNER** STATE AGENCY **MILEPOINT** 35.28
NAME & FEATURE INTERSECTED MORRISTOWN LINE OVER FRANKLIN ROAD **FACILITY** MORRISTOWN LINE
TOWNSHIP DENVILLE TOWNSHIP
TYPE SLAB **DESIGN** **MATERIAL** Reinforced Concrete
SPANS 2 **LENGTH** 54 ft **WIDTH** No Data
CONSTRUCTION DT 1927 **ALTERATION DT** **SOURCE** NJDOT
DESIGNER/PATENT UNKNOWN **BUILDER** UNKNOWN

SETTING / CONTEXT The bridge is in a wooded, undeveloped section of the township. Contiguous to the bridge on the southeast is the site of the Hill Organ Company, of which no buildings remain. It is just west of the junction of the Boonton Line with the Morristown Line and carries two active tracks over two lanes of traffic and two sidewalks.

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 concrete slab bridge is a common bridge type used in the grade crossing elimination on the Boonton Line, and it is similar to several in the Towaco section of Montville Township. It is supported on concrete abutments and bents with arched struts. The upper portion is enclosed by paneled parapets. There are no distinguishing features about the bridge, and it is neither technologically nor historically significant.

INFORMATION

PHOTO: 514:21-22 (07/91)

REVISED BY (DATE):

QUAD: Dover

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1465164	CO	MORRIS	OWNER	STATE AGENCY	MILEPOINT	44.97
NAME & FEATURE INTERSECTED	BOONTON LINE OVER SHIPPENPORT ROAD			FACILITY	BOONTON LINE		
TOWNSHIP	ROXBURY TOWNSHIP						
TYPE	THRU GIRDER	DESIGN		MATERIAL	Steel		
# SPANS	1	LENGTH	40 ft	WIDTH	No Data		
CONSTRUCTION DT	1910	ALTERATION DT		SOURCE	PLANS		
DESIGNER/PATENT	DL&W RR ENGINEERING DIV			BUILDER	AMERICAN BRIDGE COMPANY		
SETTING / CONTEXT	The bridge is in a mixed-use area with scattered residential and light industrial structures. It carries two active tracks and a service road (formerly tracked) over a two-lane connector road with one sidewalk. The road links two lake communities and two major east-west highways. The railroad carries NJT's Boonton Line, a commuter rail line.						
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 bridge was originally composed of five ballasted deck thru girders with floor beams and lateral bracing supported on concrete abutments. One bay or girder has been removed. The bridge is a representative example of a common overpass type, and it is not historically or technologically distinguished.						
INFORMATION							
	PHOTO:	515:3A-4A (07/91)		REVISED BY (DATE):		QUAD:	Stanhope

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1468161	CO	MORRIS	OWNER	STATE AGENCY	MILEPOINT	0.0		
NAME & FEATURE INTERSECTED	UNION AVENUE OVER MORRISTOWN LINE			FACILITY	UNION AVENUE				
TOWNSHIP	MADISON BOROUGH								
TYPE	DECK ARCH	DESIGN	ELLIPTICAL				MATERIAL	Reinforced Concrete	
# SPANS	1	LENGTH	53 ft	WIDTH	50.7 ft				
CONSTRUCTION DT	1914	ALTERATION DT						SOURCE	NJDOT
DESIGNER/PATENT	UNKNOWN					BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is in a residential area with a heavily wooded band between the railroad and domestic properties. It is part of the Morristown Line grade crossing elimination project of the early 20th century, when the rail line was also straightened in this section of Madison to remove a sharp curve. The structure carries two lanes of traffic and two sidewalks over two electrified tracks of NJT's Morristown Line.

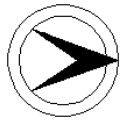
1995 SURVEY RECOMMENDATION Not Eligible **HISTORIC BRIDGE MANAGEMENT PLAN (EVALUATED)** No
CONSULT STATUS Not Individually Eligible.
CONSULT DOCUMENTS SHPO Letter 6/30/95

SUMMARY The well-proportioned concrete deck arch bridge with a standard-design balustrade and channeled base representative of the Morristown Line grade crossing elimination spans built in the 1910s. It is similar in design and type to others over the line in Madison and Morris Townships. The metal pedestrian barrier is a modern addition. The bridge is smaller and less detailed than other concrete arches on the line, like display memory. It is well preserved is not technologically innovative or distinct

INFORMATION

PHOTO: 501:28-29,517:33-35A (05/91) REVISED BY (DATE): QUAD: Chatham

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	1468171	CO	MORRIS	OWNER	STATE AGENCY	MILEPOINT	0.0		
NAME & FEATURE INTERSECTED	DANFORTH ROAD OVER MORRISTOWN LINE			FACILITY	DANFORTH ROAD				
TOWNSHIP	MADISON BOROUGH								
TYPE	STRINGER	DESIGN	ENCASED				MATERIAL	Steel	
# SPANS	3	LENGTH	138 ft	WIDTH	30 ft				
CONSTRUCTION DT	1941	ALTERATION DT						SOURCE	NJDOT
DESIGNER/PATENT	UNKNOWN					BUILDER	UNKNOWN		

SETTING / CONTEXT The bridge is located in a wooded area contiguous to the campuses of Bayley-Ellard High School and Fairleigh Dickinson University, both of which were private estates when the bridge was built. To the east are low-density single family homes. The high brick wall along the FDU campus was erected by former owner Florence Vanderbilt Trombley to obstruct the view of the trolley which ran parallel to the railroad.

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 Moderne-detailed stringer span on a concrete substructure is later than other grade crossing elimination structures on the Morristown Line. In addition to the common Moderne banding on the columns and the shallow-paneled parapets, the fascia stringer are haunched. The detailing is representative of the early 1940s and is not unusual. Chain-link safety barriers atop the parapets are ca. 1982 alterations. The bridge is not technologically innovative nor historically significant.

INFORMATION

PHOTO: 502:21-22 (05/91)

REVISED BY (DATE):

QUAD: Morristown

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES**



NEW JERSEY HISTORIC BRIDGE DATA

STRUCTURE #	9050001	CO	MORRIS	OWNER	OTHER FEDERA	MILEPOINT	0.0	
NAME & FEATURE INTERSECTED	PLEASANT PLAINS ROAD OVER GREAT BROOK		FACILITY	PLEASANT PLAINS ROAD				
TOWNSHIP	HARDING TOWNSHIP							
TYPE	PNY TRUSS	DESIGN	PRATT				MATERIAL	Steel
# SPANS	1	LENGTH	75 ft	WIDTH	15.5 ft			
CONSTRUCTION DT	1887	ALTERATION DT	1922		SOURCE	FREEHOLDERS MINUTES		
DESIGNER/PATENT	J.P. BARTLEY & SONS			BUILDER	J. P. BARTLEY & SONS			

SETTING / CONTEXT Located within the Great Swamp Wildlife Refuge, a 7,200-acre natural area, the bridge is on a paved road that is closed to through traffic. Contiguous to the bridge is Swamp Fox Farm, a working farm with an 18th-century farmhouse and several outbuildings. The bridge carries park service vehicles over the slow-moving Great Brook, a major watercourse in the Great Swamp.

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

SUMMARY The pin-connected six-panel half-hip Pratt pony truss was built by the local fabricator, J. P. Bartley & Co. While the 1922 concrete abutments are more recent than the superstructure, county records indicate that the bridge was built for the site in 1887. The trusses are virtually unaltered and are among the best preserved example of their type within the county. It has no readily visible welded repairs. The steel was produced by Carnegie, and the eye bars are forged with loop eyes.

INFORMATION

PHOTO: 517:43A-8A (12/91)

REVISED BY (DATE):

QUAD: Bernardsville