

Merritt Parkway, Newfield Avenue Bridge
Spanning the Merritt Parkway at the 11.41 mile mark
Stamford
Fairfield County
Connecticut

HAER No. CT-80

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
U.S. Department of the Interior
P.O. Box 37127
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HISTORIC AMERICAN ENGINEERING RECORD

Merritt Parkway, Newfield Avenue Bridge

HAER No. CT-80

Location: Spanning the Merritt Parkway at the 11.41 mile mark in Stamford, Fairfield County, Connecticut

UTM: 18.622955.4552485
Quad: Stamford, Connecticut

Construction Date: 1937

Engineer: Connecticut Highway Department

Architect: George L. Dunkelberger, of the Connecticut Highway Department, acted as head architect for all Merritt Parkway bridges.

Contractor: Mariani Construction Company
New Haven Connecticut

Present Owner: Connecticut Department of Transportation
Wethersfield, Connecticut

Present Use: Used by traffic on Newfield Avenue to cross the Merritt Parkway

Significance: The bridges of the Merritt Parkway were predominately inspired by the Art Deco and Art Moderne architectural styles of the 1930s. Experimental forming techniques were employed to create the ornamental characteristics of the bridges. This, combined with the philosophy of incorporating architecture into bridge design and the individuality of each structure, makes them distinctive.

Historians: Todd Thibodeau, HABS/HAER Historian
Corinne Smith, HAER Engineer
August 1992

For more detailed information on the Merritt Parkway, refer to the Merritt Parkway History Report, HAER No. CT-63.

LOCAL HISTORY

In 1640, agents of the New Haven Colony bought land on the banks of the Rippowam River where it meets the Long Island Sound. The following year, twenty-nine families from Wethersfield purchased these lands and moved there under the leadership of the Reverend Adam Davenport. The small settlement took the name Stamford even though it was still under the jurisdiction of the New Haven Colony. Stamford would continue to grow, and at one point included parts of Greenwich, Bedford, Pound Ridge, New Canaan, and Darien. In 1685, Stamford received its town patent from the Connecticut General Assembly. By 1700 its population had grown to 585; over the next century this number increased dramatically to 4,465.¹

"Stamford began as a typical rural New England village and remained an agrarian community throughout the seventeenth and eighteenth centuries."² The region maintained around 4,000 residents until the arrival of the railroad in 1848. The introduction of the train meant that Stamford was less than two hours from New York City. The railroad also caused a boom in manufacturing. By 1850 the population increased to 5,000, and thirty years later this number more than doubled to 11,000.

Stamford's proximity to New York, combined with inexpensive land, and the availability of cheap foreign-born labor enabled many local companies to prosper and expand. The Stamford Manufacturing Company, the St. John Woodworking Company, the Stamford Woolen Mills, and the Yale & Towne Manufacturing Company, employed thousands of workers by the early 1890s.³

¹D. Hamilton Hurd, History of Fairfield County, Connecticut, (Philadelphia: J. W. Lewis Co., 1881), 692.

²Wayne Russell, "That Special Blend--Stamford's Melting Pot," Stamford Past and Present, 1641-1976, (Stamford: Stamford Bicentennial Committee, 1976), 67.

³Russell, 67.

With this expansion of manufacturing came increased traffic on the main artery through town, the Boston Post Road. By the end of World War I, local residents were clamoring for a solution to the vehicular congestion. Unlike other communities along the Merritt that suffered through many conflicts, most residents in Stamford worked together to have the roadway completed as soon as possible.⁴

BRIDGE CONSTRUCTION HISTORY

Newfield Avenue begins at Lakeside Drive just north of the Merritt and proceeds south to downtown Stamford. The Osborn-Barnes Construction Company of Danbury, CT, received the contract to grade the Merritt Parkway from Guinea Road, in Stamford, to Ponus Ridge Road, in New Canaan (ConnDot project #180-31). While the Newfield Avenue bridge is located within this section of the Merritt, the grade separation and bridge contract went to the Mariani Construction Company of New Haven, CT (ConnDot project #180-42).⁵ The bridge was completed in 1937. The paving work for this region of the Merritt extended from Wire Mill Road, in Stamford, to Lapham Avenue, in New Canaan. This contract was awarded to the New Haven Construction Company of New Haven, CT (ConnDot project# 180-93). In 1988, all loose and spalling concrete was removed from the Newfield Avenue Bridge, it then was patched, sealed, and painted (ConnDot #135-152).⁶

⁴"Merritt Parkway Opens," Stamford Advocate, 3 July 1938, p. 1.

⁵Contract Card File, Map File and Engineering Records Department, Connecticut Department of Transportation, Wethersfield, CT.

⁶Newfield Avenue Bridge, DOT #707; Bridge Maintenance File, Engineering Department, Connecticut Department of Transportation, Newington, CT.

BRIDGE DESCRIPTION

The Newfield Avenue Bridge is a single-span, reinforced-concrete, barrel-type rigid-frame bridge spanning 62'-2-1/4" with a clear roadway 30' wide. Parallel wing walls, 40' long, form the approach for the underpass. The Merritt Parkway travels under the bridge at a skew of 40-30', with a clear roadway 60' wide.

The rigid-frame design allows the engineer to decrease the structural material at the center of the span, thus forming an arched opening. (See the Merritt Parkway History Report, HAER No. CT-63, for a more detailed description of the rigid-frame.) The intrados of the span rises 3'-2" from the springline to the crown in a 154' radius, while the extrados rises only a few inches from the knee to the crown. The frame thickness at the crown is 21". The outside of the knee is squared with a notch, and the inside of the knee is a corner with an obtuse angle. The minimum clearance 30' from the centerline of the parkway roadway was designed to be 12'-10". The frame leg thickness increases from 3'-9" at the base to 4'-5" at the knee. The exposed face of the leg remains vertical, and the hidden face slopes away from the roadway. The year 1936 is carved into the face of one leg.⁷

The geometric patterns and vertical emphasis of this bridge are in an Art Deco style. The verticality is manifested in the pylons, resembling a bundle of reeds, and in the steps in the faces and the tops of the wing walls and spandrels. The recurring figure of the bridge is a quarter bull's-eye, appearing as a two-dimensional ornament and as a three-dimensional bracket. Originally the crowning ornament of the bridge was a precast panel featuring the Connecticut coat of arms flanked by waves. The panel was metallized in bronze. Now the entire bridge is covered with a cream-colored coating, and the panel lacks a contrasting color to highlight it.

⁷The date on the bridge does not correspond to the completion date of the bridge.

BIBLIOGRAPHY

Hurd, D. Hamilton. History of Fairfield County, Connecticut. Philadelphia: J. W. Lewis Co., 1881.

Russell, Wayne. "That Special Blend--Stamford's Melting Pot." Stamford Past and Present, 1641-1976. Stamford: Stamford Bicentennial Committee, 1976.

Stamford Bicentennial Committee. Stamford Past and Present, 1641-1976. Stamford: Stamford Bicentennial Committee, 1976.

Stamford Advocate. 1937-1939.

----- . Contract Card File. Map File and Engineering Records Department, Connecticut Department of Transportation: Wethersfield, CT. This includes construction drawings, copies of which are in the HAER field records.

----- . Bridge Maintenance File. Engineering Department, Connecticut Department of Transportation: Newington, CT.

PROJECT INFORMATION

This recording project was undertaken by the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER) Division of the National Park Service, Robert J. Kapsch, Chief. The Merritt Parkway recording project was sponsored and funded by the Connecticut Department of Transportation (ConnDot) and the Federal Highway Administration.

The fieldwork, measured drawings, historical reports and photographs were prepared under the general direction of Eric N. DeLony, HAER Chief, and Sara Amy Leach, HABS Historian.

The recording team consisted of Jacqueline A. Salame (Columbia University), architect and field supervisor; Mary Elizabeth Clark (Pratt Institute) and B. Devon Perkins (Yale University), architectural technicians; Joanne McAllister-Hewlings (US/ICOMOS-Great Britain, University of Sheffield), landscape architect; Corinne Smith (Cornell University), engineer; Gabrielle M. Esperdy (City University of New York) and Todd Thibodeau (Arizona State University), historians; and Jet Lowe, HAER photographer.