Merritt Parkway, West Rocks Road Bridge
Spanning the Merritt Parkway at the 18.16 mile mark
Norwalk
Fairfield County
Connecticut

HAER No. CT-94

HAER
CONN
1-NOWA,
14-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
U.S. Department of the Interior
P.O. Box 37127
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

Merritt Parkway, West Rocks Road Bridge

HAER No. CT-94

Location:	Spanning the Merritt Parkway at the 18.16 mile mark in Norwalk, Fairfield County, Connecticut UTM: 18.632780.4555900 Quad: Norwalk North, Connecticut
Construction Date:	1938
Engineer:	Connecticut Highway Department
Architect:	George L. Dunkelberger, of the Connecticut Highway Department, acted as head architect for all Merritt Parkway bridges.
Contractor:	Paul Bacco Construction Company Stamford, Connecticut
Present Owner:	Connecticut Department of Transportation Wethersfield, Connecticut
Present Use:	Used by traffic on West Rocks Road 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, Roger Ludlow acquired land along the east side of the Norwalk River from the Long Island Sound to twelve miles inland. A couple of months later Daniel Patrick, a friend of Ludlow, purchased a similar amount of acreage on the west side of the river. These two acquisitions encompassed all of present-day Norwalk.[1]

Ten years passed between these purchases and settlement of the region. In 1650, Ludlow sold his land to residents of the Hartford Colony. That same year, these new owners moved to what is now East Norwalk, under the leadership of two surveyors, Richard Olmstead and Richard Webb. In 1651, Norwalk formed a town. The community gradually expanded as an agricultural and shipping center. At one point Norwalk included parts of Wilton, New Canaan, and Westport. By the beginning of the American Revolution, Norwalk included the districts of Norwalk, South Norwalk, East Norwalk, West Norwalk, Broad River, Silvermine, Winnipauk, and Cranbury.[2]

In summer 1779 the British burned more than 300 structures in the town. The community took several years to rebound from this loss, but by the early 1800s, Norwalk was again an expanding agricultural and shipping community. Larger scale industrial development commenced in 1848, when the New York, New Haven, and Hartford Railroad reached the Norwalk River. Norwalk became a hat-making center. The Volk Hat Company employed more than 500 workers. Other substantial enterprises developed, including the Norwalk Lock Company, Norwalk Iron Works, and Roth and Goldschmidt

---

[1]-------, This Is Norwalk (Norwalk: League of Women Voters, 1963), 5.

[2]Samuel Richard Weed, Norwalk After Two Hundred and Fifty Years (South Norwalk: C. A. Freeman Publishers, 1901), 18-19.

Corset Company. Fueling this development was the arrival of large numbers of Irish and German immigrants.[3]

Following World War I, Norwalk experienced another population boom, as many New Yorkers who had vacationed in Norwalk for years settled permanently and began to commute. These new arrivals eagerly awaited completion of the Merritt Parkway. After it was finished, the parkway helped to accelerate the residential development of the western sections of the community, especially Winnipauk and Cranbury. During World War II watchtowers were established on the Merritt to spot airplanes and relay the information to Mitchell Field on Long Island.[4]

BRIDGE CONSTRUCTION HISTORY

West Rocks Road goes from downtown Norwalk to Main Avenue/Route 7 in Winnipauk. The Daniel Deering Construction Company of Norwalk, CT, received the contract to grade the Merritt Parkway from New Canaan Road/Route 123 to West Rocks Road, in Norwalk (ConnDot project #180-51). While the West Rocks Road Bridge is within this section of the Merritt, the grade separation and

---

[3]This Is Norwalk, 5-6.

[4]Deborah Wing Ray and Gloria P. Stewart, Norwalk Being an Historical Account of That Connecticut Town, (Canaan, NH: Phoenix Publishing, 1979), 194, 200.
This Is Norwalk, 6.
"3000 Attend Merritt Parkway Opening; Hear Cross Voice Hope For Extension," Norwalk Hour, 30 June 1938, p. 1.

bridge contract went to the Paul Bacco Construction Company of Stamford, Connecticut (ConnDot project #180-66).[5] The bridge cost $33,413 and was completed in 1938. The paving work for this region of the Merritt extended from Comstock Hill Road, in Norwalk, to West Rocks Road. This contract was awarded to the New Haven Construction Company of New Haven, Connecticut (ConnDot project# 180-95). In 1988, all loose and spalling concrete was removed from the West Rocks Road Bridge, it then was patched, sealed, and painted (ConnDot #173-107).[6]

BRIDGE DESCRIPTION

The West Rocks Road Bridge is a single-span deck bridge comprising three steel rigid-frames that span 79'-4". Parallel wing walls, 45'-8" long, form the approach for the underpass. Spaced 12'-6" on center, the frames support a 9-1/2" thick reinforced-concrete slab that cantilevers 5'-7" past the outer frames. The Merritt Parkway travels under the bridge at a skew of 36°-4'-15", with a clear roadway of 60'. 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 almost 4' from the springline to the crown, while the extrados rises a few inches from the knee to the crown. The frame thickness at the crown is 20". The inner radius of the knee of the frame is 20", and the outer is 7'. The inside face of each leg remains vertical for a height of 12', while the outside face slopes to thicken the leg from 3' at the bottom to more than 5' at the knee. A triangular heel placed at the base of each leg increases the bearing area.

---

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

[6]West Rocks Road Bridge, DOT #722; Bridge Maintenance File, Engineering Department, Connecticut Department of Transportation, Newington, CT.

The steel frames are I-sections built up from 6" equal-leg angles covered with plates for flanges and 1/2" thick plates for webs. All flange and web pieces are connected with 7/8" diameter rivets. Web stiffeners each side of the web are spaced 4'-6-5/8" apart across the span and closer at the knee and legs. Channel sections serve as cross braces for adjacent frames.

Erection drawings indicate that each frame was fabricated in five sections. The leg sections were erected first, then the section with the knee and approximately one-third of the span, and then the middle section. All field connections were riveted. The legs of the frame, encased in concrete, bear on a rectangular, reinforced-concrete footing and are attached to it with a combination of anchor bolts and swedge bolts. A cork-filled expansion joint and a 9" deep vertical key separate the reinforced-concrete wing walls from the main span of the bridge. The geometric patterns of the steel railing and decorative concrete bands are stylistically Art Deco. Between concrete posts, thin bars and round pipes form a combination of balusters and rails with circular insets. At the wing walls, wide balusters support a large concrete top rail with chamfered edges. A meander band formed into the concrete below the rail runs across the bridge span and the wing walls. The band is broken at the pilasters on the wing walls below each post. With the exception of these pilasters, the faces of the wing walls are battered. The band is also broken at the main pylons. In plan, each pylon is a large rectangle with concave curves at two corners. The pylon decreases in size incrementally several times from the base to the top. A deep groove in the shape of an ogee arch is cut down the center of each pylon. The pylons at the end of the wing walls are smaller versions of the main pylons. The end pylons are solid above the roadway, but the main pylons provide a U-shaped alcove in the railing.

BIBLIOGRAPHY

Ray, Deborah Wing, and Gloria P. Stewart. Norwalk Being an Historical Account of That Connecticut Town. Canaan, NH: Phoenix Publishing, 1979.

Weed, Samuel Richard. Norwalk After Two Hundred and Fifty Years, An Account of the Celebration of the 250th Anniversary of the Charter of the Town. South Norwalk: C. A. Freeman Publishers, 1901.

-------. This Is Norwalk. Norwalk: League of Women Voters, 1963.

Norwalk Hour. 1937-38.

———. 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.