Merritt Parkway, Plattsville Road Bridge
Spanning the Merritt Parkway at the 29.7 mile mark
Trumbull
Fairfield County
Connecticut

HAER No. CT-116



PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
U.S. Department of the Interior
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# HISTORIC AMERICAN ENGINEERING RECORD

Merritt Parkway, Plattsville Road Bridge

HAER No. CT-116

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| Location: | Spanning the Merritt Parkway at the 29.7 mile mark in Trumbull, Fairfield County, Connecticut<br><br>UTM: 18.647575.4565560<br>Quad: Bridgeport, Connecticut |
| Construction Date: | October 1939 |
| Engineer: | Connecticut Highway Department |
| Architect: | George L. Dunkelberger, of the Connecticut Highway Department, acted as head architect on all Merritt Parkway bridges. |
| Contractor: | Mariani Construction Company<br>New Haven, Connecticut |
| Present Owner: | Connecticut Department of Transportation<br>Wethersfield, Connecticut |
| Present Use: | Used by traffic on Plattsville 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 uniqueness of each structure, makes them distinctive. |
| Historians: | Todd Thibodeau, HABS/HAER Historian<br>Corinne Smith, HAER Engineer<br>August 1992 |

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

## LOCAL HISTORY

In 1668, there were only five settlers living beyond the two- mile limit of the Stratford meeting house. Shortly after this date, the land north of Stratford was surveyed, laid out and assigned to individuals. It is unknown if anyone settled there before Abraham Nichols and his family arrived from Stratford in 1690. Other families soon followed, creating a district known as Nichols Farms.[1]

As the population increased, the desire for a local church and government became evident. In 1725, Nichols Farms residents petitioned the General Court for village privileges and a committee was named to view their case. The General Assembly acted in favor of their petition and in October 1725 the Assembly granted the residents of Nichols Farms the "liberty of village privileges," as the Society of Unity. Unity was still a part of Stratford, but could maintain its own meeting house and school, through a local tax.[2]

At the same time, residents from Fairfield were clearing lands west of Unity. This area came to be known as the Long Hill region and faced many of the same problems as Nichols Farms. These settlers were forced to pay for a church and school that were too far away for them to use.[3]

In 1740 the General Assembly granted the Long Hill region an exemption from paying taxes for the school and meeting house in Stratfield, between December and mid March. Furthermore, Long Hill was allowed to develop its own meeting house during these months. Thus, the Winter Society of Long Hill was created; this arrangement continued for four years.

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[1]History of Trumbull: Dodrasquicentennial, 1797-1972, (Trumbull: Trumbull Historical Society, Inc., 1972), 25.

[2]History of Trumbull: Dodrasquicentennial, 26.

[3]David A. Cronin, "History of Trumbull, Connecticut," Historical Sketches of Trumbull, Connecticut: Tercentury Celebration, (Trumbull: The Trumbull Historical Committee, 1935), 5.

In 1744, the parishes of Unity and Long Hill, only five miles apart, were consolidated into the Society of North Stratford. The new society functioned in virtually the same manor as the Unity parish. As they were now allowed to manage their own religious and educational affairs, residents became anxious to obtain complete independence from Stratford. For more than fifty years North Stratford sought to become an individual township. In October 1797, the General Assembly passed the "Trumbull Bill" establishing the Society of North Stratford as the town of Trumbull.[4]

The Boston Post Road and the main line of the railroad both passed to the south of Trumbull, isolating the community as a rural farming region until the completion of the Merritt Parkway in 1940. Trumbull was the location the Connecticut Highway Department's main field office during the construction of the Merritt Parkway.

BRIDGE CONSTRUCTION HISTORY

Plattsville Road commences at Old Town Road and proceeds north to Madison Avenue. The Osborn-Barnes Construction Company of Bristol, CT, received the contract to grade the Merritt Parkway from the Black Rock Turnpike in Fairfield to the Main Street/Route 25 interchange in Trumbull (ConnDot project #180-52). While Plattsville Road is located within this section of the Merritt, the grade separation and bridge contract went to the Mariani Construction Company of New Haven, CT.[5] The bridge cost $33,155 and was under construction from 2 May 1939, to 16 October 1939. The paving contract for this region of the Merritt extended from the Morehouse Highway in Fairfield to the Main Street/Route 25 interchange in Trumbull. This contract was awarded to the New Haven Construction Company of New

[4] History of Trumbull: Dodrasquicentennial, 28.

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

Haven, CT (ConnDot project #180-102). The Plattsville Bridge has required little maintenance since it was built. Recently, the bridge was defoliated and some spalling concrete was removed and patched.[6]

## BRIDGE DESCRIPTION

The Plattsville Road Bridge is a single-span, reinforced- concrete, barrel-type rigid-frame bridge spanning 74'-8" with a clear roadway of 15' at a 1.9 percent grade. Parallel wing walls, 42' long, form the approach for the underpass. The Merritt Parkway travels under the bridge at a skew of 19°-42', with a clear roadway of 70'-4".

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 4' from the springline to the crown, while the extrados rises only a few inches from the knee to the crown. The frame thickness at the crown is 27". The outside of the knee is curved, and the inside of the knee is a corner with an obtuse angle. The frame leg thickness increases from 42" at the base to 66" at the knee. The exposed face of the legs remains vertical, and the hidden face slopes away from the roadway. The frame leg varies in height due to the sloping of Plattsville Road and the Merritt Parkway. The minimum clearance at the northeast corner, approximately 30' from the centerline of the roadway, was designed to be 14'. The drawings specified that, as individual elements, the frame and wing walls were to be poured monolithically above the reinforced-concrete footings. The pylon at the main pier is articulated by a small step outward in the plane of the face. A construction joint was allowed between the frame and the

[6]Plattsville Road Bridge, DOT# 746; Bridge Maintenance File, Engineering Department, Connecticut Department of Transportation: Newington, CT.

pylon if the contractor needed a joint for easier construction. Expansion joints, 1/2" wide, filled with cork and 16-ounce copper flashing, were placed between the frame and the wing walls.

The detailing of the bridge is Art Moderne. The exterior faces and wing walls are smooth except for the Connecticut coat of arms displayed at the crown of the arched span. The aluminum and concrete railing forms a strong horizontal element. The lines of three aluminum rails over the frame are continued at the abutments by three horizontal grooves formed in the concrete parapet. The smooth surfaces of the face of the frame leg and the underside of the arch of the rigid frame are broken by four ribs that step in thickness from 6-3/8" at the base of the leg to 3" at the crown.

## BIBLIOGRAPHY

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-------. History of Trumbull: Dodrasquicentennial, 1797-1972. Trumbull: The Trumbull Historical Society, Inc., 1972.

-------. 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 Elizaheth 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; Gahrielle M. Esperdy (City University of New York) and Todd Thihodeau (Arizona State University), historians; and Jet Lowe, HAER photographer.