

Merritt Parkway
Beginning in Greenwich and
running 38 miles to Stratford
Greenwich
Fairfield County
Connecticut

HAER No. CT-63

HAER
CONN,
1-GREW,
2-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

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 HAER No. CT-63

Location: Extends 38 miles from Greenwich to Stratford in Fairfield County, Connecticut

Construction Date: 1934-40

Designer: George L. Dunkelberger/Connecticut State Highway Department

Present Owner: Connecticut Department of Transportation

Present Use: Motor highway restricted to non-commercial vehicles

Significance: The Merritt Parkway was the first divided-lane, limited-access highway in Connecticut. As one of the first roads to combine the aesthetics of scenic and recreational parkways with the efficiency of high-speed motorways, the Merritt Parkway represents a significant development in the evolution of American highway design. The ornamentation of the Merritt's bridges introduced commercial architecture styles such as Art Deco and *Art Moderne* into a new context. By improving access to New York City, the Merritt Parkway played a crucial role in the rapid commercial and residential development of Fairfield County in the 1930s and 1940s.

Project Information: The recording was undertaken during summer 1992 by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Division of the National Park Service in cooperation with ConnDOT, the Federal Highway Administration, and the Connecticut Historical Commission.

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**CONNECTICUT'S MERRITT PARKWAY:
HISTORY AND DESIGN**

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Introduction

Statement of Significance

The roadways and bridges of the Merritt Parkway embody numerous design and construction technologies developed in the 1920s and 1930s, including a divided-lane roadway, reinforced concrete pavement, and nearly fifty rigid-frame bridges. Stylistically, the Merritt's bridges were inspired by trends prevalent in the commercial architecture of the 1930s, but they introduced styles such as Art Deco and Art Moderne into a new context--the parkway. Several experimental sculptural forming techniques explored the ornamental use of concrete on the bridges. In landscaping the right-of-way and the median, the Merritt's designers relied on established parkway precedents to integrate the roadway into the existing countryside and to create a progression of individual and changing vistas. These are achieved by planting native trees, shrubs, and ground coverings in a contrived-but-naturalistic manner. Within a social context, the Merritt Parkway had a dramatic impact on southwestern Connecticut by providing a decisive link between Westchester County and New York City to the south. The Merritt played a crucial part in the rapid commercial and residential development of Fairfield County in the 1930s and 1940s.

Methodology

The research undertaken for the Merritt Parkway recording project brings together a variety of primary and secondary source materials, including government reports, articles, drawings, photographs, and maps. The historians have used these materials to trace the social and political history of the Merritt and the evolution of the parkway's design. Because of the Merritt Parkway's importance in the state of Connecticut and the surrounding region, much of this material has been preserved in public collections. However, some key documents are missing. Internal Connecticut State Highway Department (now Connecticut Department of Transportation) records relating to the construction of the Merritt are lost, having been destroyed in accordance with a department policy of disposing of documents more than twenty years old. The minutes of the Merritt Parkway Commission, though stored at the Connecticut State Library in Hartford, could not be located. At the time of this writing, a search is underway to locate them.

The history portion of this essay is based on materials prepared by the Connecticut State Highway Department from the 1930s to the present. These include annual reports, land and road surveys, traffic studies, and financial statements, as well as press releases and promotional materials such as tourist maps and brochures. Articles appearing in numerous Fairfield County town newspapers, principally the Greenwich Press and the New York Times beginning in the 1920s, were especially useful in developing a chronology of the planning, politics, and construction of the Merritt Parkway.

The design portion of this essay is based largely on the original drawings of the parkway's bridges, roadways, toll plazas, signs, and safety barriers. Unfortunately the original plans for the landscaping of the parkway are lost--or may have never existed. Therefore, the landscape analysis is founded on period photographs in the Connecticut Department of Transportation (ConnDOT) collection. Equally valuable were the procedures manuals, reports, and other publications of the Bureau of Roadside Development of the Connecticut State Highway Department, whose staff designers were responsible for landscaping the Merritt. Other sources useful in understanding its landscaped, architectural, and engineered facets are the many articles about bridge and highway/parkway construction in general, and the Merritt in particular, published in architecture and engineering journals, especially Engineering News-Record, Landscape Architecture, and the Journal of the Connecticut Society of Civil Engineers. A number of these articles were written by members of the Merritt's design team or other employees of the Highway Department.

Each bridge and building associated with the Merritt Parkway (HAER No. CT-63), has been assigned its own number (which appears parenthetically after it), and is represented by an individual report and photographs. For a physical description and construction history for each of these structures, consult the respective report. A list of the structures documented as part of this recording project, and the number assigned to it, are found in Appendix B: Merritt Parkway Bridges and Buildings (page 127).

Acknowledgements and Project Information

Documentation of the Merritt Parkway was undertaken through the efforts of ConnDOT Commissioner Emil H. Frankel; Peter Szabo, executive aide to the commissioner, ConnDOT; Robert Moore, ConnDOT photographer; Ralph Steadham, ConnDOT, Environmental Planning; Keith Hall, ConnDOT, Environmental Planning; Maribeth M. Demma, ConnDOT, Bureau of Policy and Planning; representatives of the Federal Highway Administration, Connecticut Division office; and David Poirier, archaeologist, Connecticut Historical Commission.

The recording was undertaken during summer 1992 by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Division of the National Park Service, Robert J. Kapsch, chief. Project leaders were Eric DeLony, HAER chief, and Sara Amy Leach, HABS historian. The documentation team was composed of: Jacqueline A. Salame, architect and field supervisor, Columbia University; architect technicians Mary Elizabeth Clark, Pratt Institute, and B. Devon Perkins, Yale University; engineer Corinne Smith, Cornell University; historians Gabrielle Esperdy, City University of New York, and Todd Thibodeau, Arizona State University; landscape architect Joanne McAllister-Hewlings, US/ICOMOS-Great Britain and the University of Sheffield; and HAER photographer Jet Lowe.

Chapter 1:
The Purpose of the Merritt Parkway

A Traffic Artery

The primary purpose of the Merritt Parkway was to relieve traffic congestion in southwestern Connecticut, especially on U.S. Route 1, the Boston Post Road, which had become intolerably congested with motor vehicles following their post World War I proliferation. One of the oldest roads in the country, the Post Road was one of the most important traffic arteries between Boston and New York; it was also the most heavily travelled highway in Connecticut, carrying both commercial and passenger traffic. Connecting the industrial centers of New England with the port of New York, the Post Road was the primary route by which raw materials entered New England and finished products left it.¹ Though a critical commercial corridor, the Post Road was also a major tourist route. As the "Gateway to New England," the Post Road carried a steady stream of passenger cars and buses destined for the resort communities that lined the coast in Connecticut, Rhode Island, and Massachusetts.

By the mid 1920s, there were too many cars and trucks for the road's two lanes and serious traffic accidents were on the rise.² The Post Road was quickly reaching its maximum traffic density and was in critical need of added capacity. Stop lights, installed to regulate the flow of traffic, only added to the congestion. In addition, the road surface was rapidly deteriorating because of constant use by heavy trucks and buses. From 1923 to 1931 the Connecticut Highway Department undertook a series of improvement projects designed to modernize the Post Road and increase its efficiency. Portions of the road between the New York state line and New Haven were widened to four lanes, straightened, repaved, and even rerouted around congested town centers in a few places.³ Despite these efforts, the Post Road remained, according to a highway department engineer, "an amazing succession of traffic lights," which resulted in "frazzled nerves" and complete exhaustion.⁴ As the New York Times described it, these driving conditions made the Post Road of the 1920s an "historic thoroughfare [that had] long ago lost its romantic interest."⁵

In 1926, even as modernization projects were underway, the state highway department began preliminary studies for a new route to parallel the Post Road. Highway Commissioner John A. Macdonald first proposed such a parallel route in a 1923 address to the Bridgeport Chamber of Commerce. He advanced the idea of an express "superhighway" for passenger cars starting at the state line in Greenwich and continuing to New Haven.⁶ Fifty miles long, 36' wide, 9" thick, with an 80'

¹ C. G. Nichols, "The Merritt Parkway," Roads and Streets (March 1940), 66.

² The 35-mile stretch of the Post Road in Fairfield County was only one-twenty-fifth of the state's trunk-line system, but it produced one-fifth of all deaths and injuries that occurred in the state. See Fairfield County Planning Association, "Safety and the Merritt Parkway," Merritt Parkway Number (February 1934): 12.

³ John A. Macdonald, "The Merritt Parkway," in Highway Commissioner's Biennial Report (Hartford: State Highway Department, 1940), 126.

⁴ Warren M. Creamer, "The Merritt Parkway: Queen of Turnpikes," Connecticut Highways 4 (July 1962): 3.

⁵ "Connecticut Opens Merritt Parkway," New York Times, 30 June 1938, p. 25 (1).

⁶ Quoted in Mary Louise King, "New Canaan and the Merritt Parkway," New Canaan Historical Society Annual 11 (1990-91): 11.

right-of-way, the route would be built inland from the Post Road, far from the populous centers of the coastal towns. For Macdonald, constructing a new parallel route and widening the Post Road were two solutions to the same problem because "neither, of itself, would satisfy the present and future traffic requirements."⁷

Though it was Macdonald's parallel route that eventually became the Merritt Parkway, his was not the first such proposal. As early as 1907, the Connecticut Automobile Parkway Corporation received a charter to build and operate an "automobile boulevard" between New York and Boston. Though never realized, the boulevard was to parallel the Post Road through Fairfield and New Haven counties with grade separations at intersections with all public highways and railroad tracks.⁸

Macdonald derived his inland parallel route from a proposal by his predecessor at the highway department, Commissioner Charles J. Bennett. Prior to 1923, Bennett recommended that a shoreline truck route be built parallel to the Post Road, thus leaving the old route free for passenger traffic only. After Macdonald took office he continued to study the truck route, but eventually abandoned it for two reasons. First, he did not believe that industries already established along the Post Road would relocate to a new route and, second, the cost of the right-of-way in the long-settled shoreline area would have been prohibitive.⁹ Despite Macdonald's rejection of a state-sponsored truck route, some individual Fairfield County communities continued to investigate truck routes well into the 1930s. In 1934, for example, Norwalk's City Planning Commission prepared sketches for a truck highway parallel to the New York, New Haven, and Hartford Railroad that was intended to pull traffic directly from the Post Road. Significantly, given the Merritt's subsequent development, Norwalk's truck highway was separated from residential development with a 100' buffer strip intended to increase property values along the existing railroad right-of-way.¹⁰

As Connecticut's traffic problems became more acute and improvements to the Post Road proved inadequate, the parallel route gained support from local politicians, civic leaders, and regional planners, alike. This regional support is best understood in light of the geographic origin of traffic in southwestern Connecticut, namely Fairfield County. Connecticut had long realized that because of geographic proximity its road and highway system was intertwined with that of New York State. Traffic surveys of the late 1920s showed that the majority of cars on the Post Road did not originate in Connecticut, but rather from "territory west of the Hudson River, from metropolitan New York, and from the South."¹¹ Commissioner Macdonald went so far as to state that the parallel route was "being forced upon" Connecticut by traffic from New York.¹²

The Regional Plan Association of New York understood this relationship and promoted a parallel route even before Macdonald did. The regional plan, formulated in 1921, was designed to "treat as one

⁷ John A. Macdonald, "The Merritt Parkway," Connecticut Society of Civil Engineers Annual 2 (1938): 22.

⁸ Connecticut Automobile Parkway Corporation, Proposed Charter for New York and Boston Automobile Boulevard (Hartford, 1907), 5-9. The charter empowered the Parkway Corporation to purchase or condemn all land needed for the route and to issue bonds to pay for the road. In later debates over the Merritt Parkway, land purchase, condemnation, and bond issues played a central role.

⁹ Nichols, 66.

¹⁰ George J. Comstock, "Truck Highways and Trailways Planned for Connecticut," American City (January 1935), 63.

¹¹ Macdonald, Highway Commissioner's Biennial Report, 126.

¹² Macdonald, Connecticut Society of Civil Engineers Annual, 22. Such out-of-state traffic was often described as "foreign." See for example "Connecticut's Charms," editorial, New York Times, 17 March 1929, p. 4 (3).

unit in planning those communities which are industrially and socially interdependent." Located within a 100-mile radius of New York City, Fairfield County was included in the plan as part of the New York metropolitan region along with Westchester County and western Long Island. The major goal of the Regional Plan was to provide a system of new railroads, highways, rapid transit, and parkways.¹³ It advocated new highways and parkways that separated the car and truck traffic of the old major roads and favored new routes, like Macdonald's parallel route, built to "divert traffic from or around populous centers" with grade separation of local streets.¹⁴ The initial regional plan suggested a parallel truck route in its scheme for regional trunk-line highways; a 1928 revision included a parallel passenger-car route in its plan for a regional highway system, showing the new route as a northwest continuation of Westchester County's Hutchinson River Parkway.¹⁵

Fairfield County's inclusion within the New York metropolitan region was spurred on by the construction of Long Island and Westchester County parkways in the 1920s: Northern and Southern State and Wantagh in the former, and Bronx River, Sawmill River, Hutchinson River, and Cross-County in the latter. After their completion, commercial, commuter, and recreational travel between Connecticut and New York greatly increased. Traffic studies showed that the Cross County and Hutchinson River parkways, in particular, were the two most important thoroughfares connecting Connecticut and New York.¹⁶ With divided lanes and grade separations, these parkways enabled motorists from New York City and Westchester to travel quickly and efficiently to Connecticut. Unfortunately, upon reaching the Connecticut border, motorists were forced onto local roads. Unless drivers were familiar with the back roads, the only possible route through Connecticut was the congested and dangerous Post Road. The proposed parallel road offered a dramatic alternative by extending the chain of express routes, thus enabling safe and speedy travel from New York City to New England. By the late 1920s the parallel route had gained widespread public support because it promised to relieve Fairfield County's traffic congestion with a new highway designed to provide "faster passage more safely."¹⁷ With the onset of the Depression however, the parallel route gained an equal amount of support because its construction promised Fairfield County unemployment relief and economic recovery.

A Public Work

During the Depression, road construction projects ranked high among public works because of the job opportunities they provided for large numbers of both unemployed and unskilled workers. In Connecticut, as early as 1930, Highway Commissioner Macdonald realized the potential of road construction for unemployment relief. According to department press releases, he ordered that all scheduled highway work be "moved forward as rapidly as the department could formulate plans and specs for construction," with the specific intention of "aiding the jobless."¹⁸

¹³ The ABCs of the Regional Plan (New York: Regional Plan Association, 1932), 10.

¹⁴ Regional Plan of New York and Its Environs, vol. 3 (New York: Regional Plan Association Inc., 1923), 24.

¹⁵ From Plan to Reality: A Report of Four Years' Progress on the Regional Development of New York and Its Environs (New York: Regional Plan Association, 1933), 37, 55.

¹⁶ Warren M. Creamer, Report of a Preliminary Study for the Construction of a Relief Highway to Alleviate Congestion on U.S. Route 1 Between Greenwich and Bridgeport (Hartford: State Highway Department, January 1943), 68.

¹⁷ "Conditions of Transportation Require Express Motor Ways," New York Times, 4 January 1931, p. 25 (10).

¹⁸ State Highway Department, press release, 17 December 1930 and 29 December 1930 (Hartford).

If regular highway department construction and repair projects provided tangible unemployment relief, a road of the Merritt's scale was guaranteed to provide benefits many times greater. In 1935 the highway department estimated that the construction of the Merritt would employ some 2,000 men for approximately two years.¹⁹ To justify the enormous expenditures of capital necessary for a large-scale project like the Merritt, public-works advocates pointed out that such projects represented "needful and economically sound addition(s) to community facilities."²⁰ From Connecticut's point of view, the money needed to build the Merritt would have to be spent anyway on unemployment relief. By employing thousands of workers in the Merritt's construction, the state was simply securing a return on its investment in unemployment relief.²¹

Aside from the workers employed directly in construction, the Merritt project would stimulate employment in all sectors of state's building industry, as contracts were let for grading, road laying, bridge construction, and landscaping. In light of these benefits, many Connecticut citizens saw the immediate construction of the Merritt as a valuable emergency measure in the best interest of the whole state. The construction of the Merritt also made Connecticut eligible for a portion of federal funds then being channelled into public road projects nationwide. The possibility of obtaining federal funds was one of the crucial factors that enabled Commissioner Macdonald to turn the parallel route from plan to reality.²²

An Aid to Regional Development

In a 1935 press conference, Governor Wilbur Cross explained the threefold purpose of the Merritt: in addition to providing a major traffic artery and thousands of jobs, the parkway would aid in "the progressive and forward-looking development of Fairfield County."²³ If the governor neglected to explain exactly what he meant by forward-looking development, he was not alone. Similarly vague espousals came from bureaucrats and regional planners alike, who described the Merritt as "a great boon" and a "vital factor" in the county's development.²⁴ What such platitudes really meant is well-articulated by Robert Caro in The Powerbroker. Though discussing the impact of parkways on Westchester and Long Island, his assessment is equally valid for Fairfield County:

Sleepy countrysides long static because of their inaccessibility suddenly became desirable locations for factories and housing developments when a parkway brought them close to a city or large town. Land in these areas suddenly became valuable.²⁵

¹⁹ William J. Walsh, "Cross Signs Parkway Bill, Asks Speed in Construction," Bridgeport Post, 13 June 1935, p. 1. Prior to 1935 some 300 men were employed clearing the right-of-way. See "Merritt Job at Halfway Mark; Employs 300 Men," Daily News-Graphic, 24 November 1934, p. 1.

²⁰ John P. Hogan, "We can Relieve Unemployment through Public Works," Better Roads (April 1933), 18.

²¹ "County G.O.P. Acts on Highway Layout," Greenwich Press, 25 October 1934, p. 11.

²² A. Earl Wood, "The Merritt Parkway History and Plan," Connecticut State Journal, August 1935, 33. See Chapter 2 for a complete discussion of federal funding.

²³ Walsh, 1.

²⁴ Macdonald, Highway Commissioner's Biennial Report, 126; Regional Plan Association report quoted in "Steady Growth Seen for Fairfield County," New York Times, 6 September 1936, p. 5 (2).

²⁵ Robert Caro, The Powerbroker: Robert Moses and the Fall of New York (New York: Alfred A. Knopf, Inc., 1974), 207.

The Merritt Parkway would bring Fairfield County close to one city in particular, New York. Fairfield County had always been susceptible to the influences of development in New York City. Indeed, the Fairfield County Planning Association considered New York the most important influence on the county's growth and development.²⁶ During the booming 1920s, county property values increased by almost 90 percent, rising from an assessed valuation of \$516,496,887 in 1920 to \$966,770,711 in 1930.²⁷ Most of this increase was attributed to the growth of New York City. In 1926 the New York Times reported that the growth of New York had a double impact on the county, turning it into a haven for commuters *and* industries, both of which wanted to be close to the city.²⁸ That same year a highway department engineer predicted the kind of development the construction of the parallel road would spur. The surrounding area would turn into a "high-class residential district," serving New York commuters.²⁹ This would result in increased real estate values and, of course, increased tax revenues for state coffers.

In the 1930s, as property values gradually declined, Fairfield County officials anxiously looked for ways to stimulate them back to pre-Depression levels. The construction of the Merritt offered a direct means of achieving this. When completed, the parkway would open to development the self-described "hinterlands" of Fairfield County, thousands of acres of land in what had recently been nearly inaccessible countryside and farmland.³⁰ One Connecticut realtor viewed the Merritt as a "marked impetus to real estate development," predicting that land adjacent to the parkway would be sold off in five- and ten-acre lots to meet the growing demand for suitable "country homes with acreage."³¹ Potential real estate value increases were even used to urge the Merritt's completion:

The increased values in real estate along the route will come from a completed highway--not from a partially completed project. Why wait ten years, with millions [of dollars] tied up, before realizing a return on the investment?³²

Whether such an argument was as convincing as the simultaneous calls for relief from traffic congestion or unemployment is unknown. But regardless of its purpose, the Merritt Parkway did indeed "control the future of Fairfield County."³³

²⁶ The other influences were Atlantic Seaboard traffic and transportation and the county's own development. See Fairfield County Planning Association, "Digest," Fairfield: The First Planned County in New England (June 1933): 3.

²⁷ Figures are for the county as a whole. Cited in Creamer, Report of a Preliminary Study, 110.

²⁸ "New York's Growth Aids CT," New York Times, 25 July 1926, p. 15 (10).

²⁹ "To Widen Boston Post Road," New York Times, 17 February 1926, p. 3 (1).

³⁰ See "The Merritt Highway," editorial, New York Times, 3 June 1935, p. 16 (1), Helen Binney Kitchel, "Story of the Merritt Parkway, Part 1," Greenwich Press, 24 March 1938, p. 6.

³¹ "Will Help Connecticut," New York Times, 17 December 1933, p. 6 (10 & 12).

³² "Merritt Highway," Greenwich Press, 1 December 1932, p. 6.

³³ Merritt Parkway Number, 6-7.

Chapter 2:
Legislating and Financing the Merritt Parkway

State Legislation

However severe traffic congestion on the Boston Post Road and however intense lobbying efforts of parallel route supporters, plans for the Merritt remained unrealized until legislative action was taken. Only after the Connecticut General Assembly passed a succession of special acts, during a decade of intense debate over the cost and location of the proposed route, did the Merritt Parkway become a reality. By the mid 1920s, the idea of a parallel route had been circulating for some time, endorsed by regional planners, road engineers, and politicians alike. In 1925, with the passage of House Bill 483, the Assembly began to seriously consider the idea. This bill appropriated \$15,000 for Highway Commissioner Macdonald to use "in surveying for a parallel route to the Boston Post Road from Bridgeport to the New York State line."¹

Two years later, under increasing pressure from Commissioner Macdonald and regional planning groups, the Assembly passed House Bill 803, authorizing the construction of a trunk line highway through Fairfield County, passing "somewhere in the vicinity of Bridgeport to a point somewhere in the vicinity of Glenville."² Though the bill authorized the Highway Department to begin construction immediately by using already appropriated trunk line funds, no formal action was taken. Indeed, the only immediate result seems to have been the decision, through lobbying efforts of Fairfield County Republicans to name the proposed highway after U.S. Representative Schuyler Merritt.

By 1929, the Merritt Highway, as it was now known, was no closer to actual construction. The delay seems to have been partially caused by the highway commissioner himself. Macdonald evidently felt that additional state appropriations, beyond those in the yearly trunk-line budget, were necessary if the highway was to be built quickly and efficiently. To arouse public opinion and hence spur the Assembly into action, Macdonald enlisted Senator Charles J. Arrigoni to introduce a bill to repeal the 1927 act.³ Though defeated as expected, the bill stimulated efforts to expedite the construction of the Merritt. Equally expeditious was the fact that 1930 was an election year and state politicians were anxious to advance a project supported by the majority of voters in Fairfield County, if not Connecticut. Not surprisingly, during the 1930-31 session, the Assembly quickly passed three bills concerning the Merritt.

The first bill passed, House Bill 660, directed the Highway Commissioner to lay out a highway from Stratford to Greenwich which, when complete would be part of the state's trunk-line system of

¹ Connecticut General Assembly, House Bill 483: An Act Concerning Appropriation for Surveys, January 1925.

² Connecticut General Assembly, House Bill 803: An Act Concerning the Trunk Line System, January 1927.

³ This according to State Rep. Kitchel from Greenwich, who spoke with Arrigoni about the bill. See Helen Binney Kitchel, "The Story of the Merritt Parkway, Part 2," Greenwich Press, 31 March 1938, p. 12.

highways.⁴ The significance of Bill 660 lay in its careful wording. By using the term "lay out" (meaning the marking of the land in preparation for subsequent building) the bill specifically authorized the first stage of construction of the Merritt, something that previous legislation had failed to do. In May 1931, to further assure the public that plans for the new highway were well underway, the Assembly approved House Bill 613, creating the Merritt Highway Commission.⁵ The commission consisted of nine members appointed by the governor, as well as the highway commissioner *ex officio*. The bill recommended that the Highway Department and the State Park and Forest Commission delegate all control over the land through which the highway ran to the Merritt Highway Commission. This accomplished, the commission was then charged with exclusive control and supervision of the beautification of the roadside right-of-way as well as the licensing of concessions along the highway. The bill further authorized the commission to supervise the expenditure of all money appropriated by Fairfield County for the development of the highway and the adjacent land. Finally, the commission was to issue all traffic rules and regulations governing the use of the Merritt.

Though Bill 613 appeared to give the Merritt Highway Commission broad powers to supervise the construction of the Merritt, its authority was challenged once construction was underway. According to the bill's wording, the commission's authority began "when said Merritt Highway shall be constructed." Commission members interpreted this to mean that they would be involved in all stages of construction:

We had assumed that the commission would confer with, advise and assist the highway department upon questions of design, location, landscaping and such problems that the drafters of the bill had intended the commission to be an accessory before and during, as well as "after the act."⁶

The Connecticut Attorney General had other ideas however, contending that the commission had no authority over the Merritt until after construction was completed.⁷ His decision effectively relegated the commission from a supervisory position to an advisory one, reaffirming that the ultimate control of the Merritt was in the hands of the highway commissioner.⁸ The Merritt Highway Commission was free to make recommendations during the construction of the Merritt, but the highway commissioner was under no obligation to accept them.⁹

⁴ Connecticut General Assembly, Special Act 314 (House Bill 660): An Act Concerning the Laying Out of a Highway, 1 May 1931.

⁵ Connecticut General Assembly, Special Act 408 (House Bill 613): An Act Creating the Merritt Highway Commission, 19 May 1931.

⁶ Kitchel, "Story of the Merritt Parkway, Part 3," Greenwich Press, 7 April 1938, p. 19.

⁷ "Attorney General Rules Macdonald Does Not Have to Consult the Merritt Commission," Greenwich Press, 14 December 1933, p. 15.

⁸ A 1937 report issued by the State Reorganization Commission stated that the "Highway Department has full responsibility for location, design and construction of the highway, just as of any other trunk-line highway." Quoted in "Plans Big Highway for Connecticut," New York Times, 7 February 1937, p. 8 (2).

⁹ In 1935 Rep. Kitchel introduced a bill to expand the commission's powers. See Chapter 3.

Financing

With the highway's layout authorized and a special commission empowered at least in name, the Assembly finally appropriated funds specifically for the Merritt with House Bill 512, which it approved at the end of May 1931. Bill 512 allocated funds to the Highway Department to purchase land for the right-of-way and to begin preliminary construction of the highway.¹⁰ As introduced the bill contained an appropriation of \$4 million, but when approved in the House the amount had dwindled to only \$1 million, the first of many Merritt appropriations decreased through floor debate.

Despite this appropriation, work on the Merritt proceeded very slowly in the following years. In 1932 several politicians, including U.S. Congressman Schuyler Merritt and Fairfield County Commissioner Rex B. DeLaCour, pointed out that at the present appropriation rate of \$1 million per year it would take ten years to build the highway.¹¹ Unsatisfied with this prospect, they called for additional funding measures which would permit immediate construction of the Merritt to be completed in a few years. Among the financing plans being considered were a federal loan from the Reconstruction Finance Corporation and a bond issue, both of which, according to optimistic supporters, would enable construction to be completed in just one year. Under both plans the Merritt would become a toll road for as many years as it took to liquidate the debt. Several state legislators advocated an increased gasoline tax to pay for the Merritt but this idea was rejected.

Late in 1933 Governor Cross and Commissioner Macdonald announced that the Merritt would cost \$15 million to complete and that they were prepared to let construction contracts immediately, pending a grant application for Federal Emergency Relief from the Public Works Administration (PWA).¹² In spring 1934, a \$347,000 PWA grant was approved for grading and bridges along seven miles of the highway in Greenwich and Trumbull with an additional grant of \$91,077 awarded later the same year.¹³ While these federal grants were a welcome addition to the yearly appropriations, they hardly silenced calls for further funding, particularly since the highway's newly projected cost meant that the Merritt would now take fifteen years to complete. Because the Merritt was urgently needed as a traffic artery a fifteen-year construction plan was unacceptable. In addition, the money already spent, some \$5 million by 1935, was viewed as "an absolutely nonproductive investment" and a "direct loss to the state."¹⁴ Increasingly, state and county officials pressed for an immediate solution to the funding problem. Throughout 1935, the most popular solution to gain support was a proposal to pay for the Merritt with a \$15 million bond issue.

Prior to 1935, Connecticut had paid for the Merritt through "pay-as-you-go" financing. Pay-as-you-go adherents generally disapproved of bond issues, believing it was unfair to ask future generations

¹⁰ Connecticut General Assembly. House Bill 512: An Act Concerning an Appropriation for the Merritt Highway, 25 May 1931.

¹¹ "Merritt Favors Loan to Finance Highway Costs," Greenwich Press, 15 December 1932, p. 3; "The Merritt Highway," Greenwich Press, 1 December 1932, p. 6.

¹² "\$15 Million for Highway," New York Times, 2 November 1933, p. 21 (1).

¹³ "Way Now Open for Start of Highway," Greenwich Press, 1 March 1934, p. 9; John A. Macdonald, "The Merritt Parkway," in Highway Commissioner's Biennial Report (Hartford: State Highway Department, 1940), 127.

¹⁴ "Urge Bond Issue for Merritt Road," Greenwich Press, 28 March 1935, p. 1.

of highway users to pay for facilities that an earlier generation had built and used.¹⁵ That Connecticut consistently subscribed to this policy was noted by the New York Times in an article discussing the state's steadfast refusal to issue bonds.¹⁶ Rep. Kitchel believed that the policy was a partisan issue, stating that Republicans did not generally support the use of bonds.¹⁷ Given this climate, it is not surprising that all of the Merritt bond-issue bills introduced to the General Assembly since 1933 had been defeated.

Using bond issues to pay for major roads was hardly an innovative concept. In the 1920s, for example, Robert Moses had used bond issues to finance his parkways through Westchester County and Long Island. Throughout the 1930s the pros and cons of highway financing with bonds were widely debated. Bond supporters argued that borrowing money to build a road immediately made great sense because even as the state was paying for the road, motorists would benefit from it. Though this social advantage was appealing, proponents asserted that there was an economic advantage to bond issues as well. In a paper delivered to the Highway Research Board, T. H. Cutler noted that bond issues could actually reduce the cost of road construction: the annual increases in materials and labor factored into the cost of road financed by pay-as-you-go did not apply to a road financed with bonds.¹⁸ According to Better Roads, a magazine to which the Highway Department subscribed, the Depression made this more valid than ever before. In 1932 the magazine urged state highway commissions to take advantage of the low cost of materials and labor caused by the Depression by issuing bonds to build roads immediately.¹⁹ That same year, in a speech before the Fairfield County Planning Association, Schuyler Merritt urged the very same thing.

Just before the end of the 1935 session of the General Assembly, a bill authorizing Fairfield County to issue \$15 million in bonds to complete the Merritt was quietly brought before the state's Roads, Bridges and Rivers Committee, which quickly reported favorably on it. On May 31, after much persuasion by Fairfield County senators, a bi-partisan majority of the Assembly voted to pass the bill, a feat the Bridgeport Post described as a "legislative coup."²⁰ Even the staunchest pay-as-you-go advocates had come to believe that the benefits of building the Merritt quickly with borrowed money outweighed any drawbacks:

If such intangible qualities as convenience, safety, enjoyment can be measured against solids like interest or carrying charges of the loan they would far outweigh them. Add to this the increased

¹⁵ Harry Tucker and Marc C. Leager, Highway Economics (Scranton, PA: International Textbook Company, 1942), 64.

¹⁶ "Bond Issue Looms for Connecticut," New York Times, 23 December 1934, p. 6 (4). Between 1919 and 1942 only four bond issues, including that for the Merritt, were made to finance individual Connecticut Highway Department projects.

¹⁷ Kitchel, "Story of the Merritt, Part 7," Greenwich Press, 5 May 1938, p. 11.

¹⁸ T. H. Cutler, "Financing a State Road System with Bonds," in Proceedings of the 8th Annual Meeting of the Highway Research Board (Washington: Highway Research Board, 1929), 70.

¹⁹ D. B. Levi, "Road Bond Issues as Related to Prevailing Low Prices," Better Roads (February 1932), 26.

²⁰ William J. Walsh, "Cross Signs Parkway Bill, Asks Speed in Construction," Bridgeport Post, 13 June 1935, p. 1.

revenue from real estate and encouragement of new building and the scales were unquestionably more than balanced.²¹

As passed, the bill that became Section 537c of the General Statutes stipulated that once the \$15 million in bonds were issued, the debt would be amortized from the Highway Department's annual budget. Beginning with fiscal year 1936 and continuing for the next fifteen years, the department would pay \$1 million to Fairfield County, which the county in turn would use to retire the bonds. Eventually, the bonds were sold in two issues, in 1935 and 1937, respectively. When the bonds were retired in 1952, the total cost of the Merritt was \$21,225,334. In addition to financing, Section 537c also called for the Merritt's immediate construction as a parkway, not a highway, and banned all commercial traffic.²²

According to many newspaper accounts, the bond bill finally passed because legislators believed the federal government was prepared to fund the Merritt through a PWA grant of \$6.75 million and a Reconstruction Finance Corporation bond purchase of \$8.25 million. By August 1935, with the estimated cost of the parkway now at \$20 million, the newspapers stated that the federal government would fund 45 percent of the project pending approval of the state's \$9 million application.²³ Though it remains unclear exactly why Connecticut's application was turned down, the project seems to have become embroiled in an existing dispute between the PWA and the Works Progress Administration. At issue was whether or not construction of the Merritt would supply enough man hours to justify the \$1,050 per worker per year for which the state asked. PWA Administrator Harold Ickes supported it; WPA administrator Harry Hopkins did not.²⁴ Although President Roosevelt himself favored the project, efforts to negotiate a solution continued until 1938 and proved fruitless. In the end, Connecticut received no Federal funding for the Merritt beyond the original 1933 PWA grants of \$438,077. According to the Greenwich Press, had Connecticut received all of the federal funding for which it applied, the Merritt would have been the largest PWA project in the state and one of the largest in all of New England.²⁵

²¹ Kitchel, "Merritt Parkway, Part 7," 11.

²² State of Connecticut, "Section 537c: The Merritt Parkway," in Chapter 80: State Highways and Bridges--Part II, Supplement to Connecticut General Statutes, 1935. See Chapter 3.

²³ See for example, "Will Spend \$20 Million on Merritt Parkway," New York Times, 15 August 1935, p. 21 (1); "Asks PWA Parkway Aid," New York Times, 4 July 1938, p. 2 (1).

²⁴ "Aid on Parkway Strikes A Snag," Greenwich Press, 5 September 1935, p. 1.

²⁵ "Funding Parkway Project," Greenwich Press, 11 July 1935, p. 3.

Chapter 3:
Planning for a Parkway

Fairfield County and Regional Planning

When the Regional Plan Association included Fairfield County within the New York metropolitan region in 1922, it recommended that Fairfield organize its own association to implement the regional plan and find solutions to its specific planning problems. Two years later the county established the Fairfield County Planning Association (FCPA), a group of private, but high-profile citizens who worked to formulate a countywide plan dealing with population, land use, traffic circulation, parks, playgrounds, and legislation.¹ From the beginning the FCPA realized that the county was subject to developmental pressures from both New York and New England, two regions whose planning agendas were quite different. What the two regions shared, however, and what affected Fairfield County most directly, was an urgent demand for highway systems to serve the burgeoning motor vehicle traffic of the North Atlantic states. The Regional Plan Association of New York (RPA) and the New England Regional Planning Commission (NERPC)—mouthpieces for their respective regions—articulated these highway needs in published reports and maps that depicted Connecticut as a crucial junction conveying major streams of traffic from one region to the other.

Concerned mainly with the flow of traffic into and out of New York City, the Regional Plan Association advocated a series of arterial routes, express highways, and parkways designed to facilitate movement between the City, Westchester County, Long Island, and Fairfield County. In 1933 the Regional Plan Association promoted the Merritt proposal as a major radial route, calling it one of the most urgently needed projects in the New York region. Together with the Hutchinson River Parkway, the Merritt would provide "a separate route for passenger vehicles between the edge of the region and New York City."²

For the NERPC, the Merritt was the first link in its Coastal Limited Way, a "freeway" running from Fairfield County to Penobscot Bay in Maine. The Coastal Limited Way was a system of "express highways" linking the important industrial and commercial centers in New England and a system of "major tourways over which the tourist or vacationist could drive in a leisurely and pleasant manner to all of the principal recreation centers."³ Though conscious of New York's and New England's plans for the Merritt, Fairfield County had to balance these with its own quite distinct requirements for organized growth and development.

Occupying 626 square miles in the southwest corner of Connecticut, Fairfield County contains twenty-three towns and municipalities which, in the 1920s-30s, consisted primarily of farming

¹ Fairfield County Planning Association, "Digest," Fairfield: The First Planned County in New England (June 1933): 3.

² From Plan to Reality: A Report of Four Years' Progress on the Regional Development of New York and Its Environs (New York: Regional Plan Association, 1933), 37.

³ New England Regional Planning Commission, A Highway System for New England 54 (June 1938): 12.

communities and small industrial cities. But change was coming rapidly to Fairfield County as thousands of acres of land shifted from agricultural to suburban residential use. This shift caused the county's population to increase 110 percent in the first thirty years of the century, a growth rate surpassed only by neighboring Westchester County and nearly twice as fast as the nation as a whole.⁴ By 1930 the county population was 386,000, with most people clustered in the shore communities of Greenwich, Stamford, Darien, Norwalk, Westport, Fairfield, Bridgeport, and Stratford.

With the county's population growth showing no sign of slackening, the FCPA aimed to control population density through careful zoning and regulated commercial and residential development that would meet the future needs of residents, and at the same time preserve the county's natural beauty. In 1936, the FCPA stated its mission bluntly:

Unspoiled rural countryside within fifty miles of New York City will always be in demand. People have and will continue to pay for it. The amount available is diminishing. Threatened on all sides by shortsighted exploitation, Fairfield County must plan its protection and protect its plan.⁵

Though the FCPA's ultimate goal was to insure economic prosperity for the county, the organization believed it could accomplish this without sacrificing the "natural amenities" that made Fairfield a place where "comfort, beauty, convenience and opportunity for healthful living [were] most abundant."⁶ Given its agenda, it is not surprising that the FCPA took an active interest in planning the Merritt Parkway, a road destined to run through the heart of Fairfield County.

The Route

Before highway department engineers determined the precise location of the Merritt, they investigated at least six full-length routes, as well as several variations through each town along the parkway's line. In 1931, one of the earliest routes for the parkway was a gently curving arc swinging north from the Post Road at Greenwich, through Stamford, New Canaan, Wilton, Weston, and Easton, then south through Trumbull and Stratford where it connected again with the Post Road (CT-63-109). While the plotters of this line incorporated the requirements for an inland parallel route prescribed by the original proposal, they ignored certain realities of Fairfield County in the 1930s.

When the parallel route was first proposed in the early 1920s, the highway department chose a route north of the Post Road, away from town centers, because it determined that the area to the south was too densely settled to permit easy acquisition of the necessary right-of-way. Unfortunately, by the time land acquisition began in 1931, the territory to the north was settled, not densely, but affluently, by people seeking seclusion from the noise and bustle of New York City. These newest residents of Fairfield County had "struck deep roots into the soil" and were unwilling to have their solitude disrupted

⁴ FCPA, "Digest," 5.

⁵ Fairfield County Planning Assoc., "Merritt Parkway Severs Bridle Paths," A Public Park and Civic Center for Darien, CT (1936): 10.

⁶ FCPA, "Digest," 5.

by a new road. This fact forced the highway department to determine a line for the Merritt that went beyond the "best theories of location where only the terrain need be considered."⁷

The first objections to the route came from Wilton and Weston. Convinced that the Merritt would "ruin the charm of their villages," both towns strenuously opposed the proposed route.⁸ Norwalk, on the other hand, was upset because the Merritt did not cross its town lines. It lobbied successfully to have the route brought south, entering Norwalk from New Canaan. In the end, the Merritt still passed through eight Fairfield County towns, but the portion through Wilton, Weston, and Easton was moved south to pass through Norwalk, Westport, and Fairfield.

Meanwhile, in New Canaan and Greenwich debates were underway to determine how the Merritt could be routed through these towns with the least amount of damage. According to engineer Warren Creamer, eight potential routes through Greenwich were investigated, though the debate focused primarily on two, that passed through the north and south portions of town, respectively (CT-63-110).⁹ The southern route, about one mile from the Post Road, passed through six miles of fully developed, hence expensive, land. The northern route, which looped two additional miles away from the Post Road, passed through seven-and-one-half miles of wilderness and a few large estates. According to the Greenwich Press, those estates made finding a suitable route through the town a "hard nut to crack."¹⁰ In 1932, when Commissioner Macdonald announced that the highway department would build the northern route, Greenwich was the first to balk, at the extra costs it would incur in building feeder roads to link up with the Merritt and, second, at the fact that the new road would divide up land that could have been sold off into valuable "back country" estates.¹¹ Once such conflicts were resolved after town meetings, planning commission reports, and Connecticut Highway Department press conferences, the final route of the Merritt was more or less in place--its subsequent alterations subject only to the vagaries of land acquisition.

Post Road Honky-Tonk and the Anti-Billboard Movement

With the Merritt's route selected, concerned Fairfield County residents turned their attention to the kind of road the highway department intended to build. Since the 1920s, the parallel route had been described alternately as a highway, freeway, and parkway. With both politicians and planners using such terms indiscriminately and interchangeably, the people of Fairfield County were not only confused, they were suspicious: confused because they did not know what the road would look like; suspicious because they thought they did and were afraid it would look just like the Post Road.

⁷ Warren M. Creamer, "The Merritt Parkway," Connecticut Society of Civil Engineers Annual 10 (1936): 102.

⁸ Helen Binney Kitchel, "Story of the Merritt, Part 6," Greenwich Press, 7 April 1938, p. 19.

⁹ Creamer, Connecticut Society of Civil Engineers Annual, 102.

¹⁰ "New Canaan Paper on Merritt Highway," Greenwich Press, 29 October 1931, p. 7.

¹¹ "Commissioner Macdonald Selects Northerly Route for the Merritt Highway," Greenwich Press, 17 March 1932, p. 1.

In 1938 Life magazine described the Post Road as "the supreme Honk-Tonk of all time."¹² The description was probably accurate. From the tree-lined highway of the 1820s the Post Road had grown into the gaudy commercial strip of the 1920s (CT-63-72). A New York Times editorial in 1927 condemned the commercialism of the Post Road and other Connecticut highways, bemoaning the loss of so many "stately old elms" to billboards, hot dog stands and gas stations.¹³ By the early 1930s a survey of a 48-mile strip of the Post Road between New York and Boston found nearly 3,000 buildings with direct access to the road and a gas station every 895'.¹⁴

Fairfield County residents pressed the state for a parallel Post Road for relief from more than just traffic congestion. They also wanted relief from the visual cacophony of the roadside, which they believed was ugly and dangerous. The Post Road's critics, from park commissioners to U.S. congressmen, decried its "architectural atrocities," "cheap stands and tawdry business developments."¹⁵ Such structures, they argued, not only disfigured the landscape (hence disturbing a vision of pastoral Connecticut countryside that was quickly disappearing in the face of rapid suburbanization), but they distracted drivers by drawing their attention away from the road and other cars, and causing innumerable accidents.

Connecticut civic groups such as the Forest Association and the Federated Garden Clubs formed an anti-billboard movement to lobby for more pleasant and safer roads through zoning and legislation. In 1935 Helen Kitchel, state representative from Greenwich and a garden club member, sponsored a bill advocating the removal of all billboards and the regulation of commercial development along existing roads. Local and regional planning associations threw their weight behind the effort. The FCPA endorsed the Kitchel bill and urged the county to put similar controls in place to regulate development of the Merritt's roadsides.¹⁶ The New England Regional Planning Commission supported billboard regulation from both an aesthetic and a safety stance. State control of roadsides eliminated "unregulated use of border land" in which billboards hid "natural scenic beauty" and enabled motorists to "concentrate on driving," undistracted by "billboards near dangerous curves [that] cause collisions."¹⁷ In The Problem of the Roadside, NERPC made its point with "yesterday" and "today" renderings of a typical New England highway not unlike the Post Road (CT-63-108). By contrast, the solution of "tomorrow" depicts a divided-lane, grade-separated, and landscaped highway that strongly resembles the Merritt. Such was the image of the Merritt that anti-billboard forces envisioned when, in 1934 with land

¹² Margaret Bourke-White, "Road Signs," Life, 27 June 1938, 5.

¹³ "Saving Connecticut's Charms," editorial, New York Times, 3 October 1927, p. 22 (1).

¹⁴ Cited in Phil Patton, Open Road: A Celebration of the American Highway (New York: Simon and Schuster, 1986), 66.

¹⁵ Creamer, Connecticut Society of Civil Engineers Annual, 101; "Says Controls Add Traffic Problems," New York Times, 18 January 1929, p. 14 (1).

¹⁶ Fairfield County Planning Association, Legislative Number (January 1935): 2, 10.

¹⁷ New England Regional Planning Commission, Limited Motorways (March 1935), 8, 5.

acquisition and grading well underway, they moved to prevent the new thoroughfare from becoming "just another Post Road."¹⁸

Highway versus Parkway

In 1935 the U.S. Department of the Interior issued a standard definition that distinguished a parkway from a highway. A parkway was designed for mostly recreational passenger-car traffic, was built within a wide park-like right-of-way and, ideally, passed through "undeveloped areas of scenic beauty," following a line that made the best scenery accessible regardless of the route's length. Grade crossings were eliminated and the roadsides were not commercially developed.¹⁹ Despite such a comprehensive definition, the term was still subject to local interpretation. In Connecticut, Merritt supporters variously defined a parkway as a highway on which commercial traffic was banned, a broad boulevard, and a highway not laid out in a straight line "through rocks and hills and valleys like a railroad."²⁰ By 1939, the Connecticut General Assembly had legislated its own definition:

A parkway shall mean any trunk line highway receiving special treatment in landscaping and marginal planting, which shall be especially designed for, and devoted exclusively to, the use and accommodation of noncommercial motor vehicle traffic, and to which access may be allowed only at highway intersections designated by the highway commissioner and designed by him so as to eliminate cross traffic of vehicles.²¹

Essentially, the distinction between highway and parkway was one of utility versus aesthetics. A highway served only the first, while a parkway served both. The FCPA affirmed this distinction, which it attributed to ownership and control of border lands. According to the FCPA, a highway was a "public road through private property," but a parkway was a "public road through public or park property."²² Because highway borders were privately owned, gas stations, billboards, etc., proliferated uncontrolled except by zoning. Because parkway borders were publicly owned park land, they were attractively landscaped and, most important, free of billboards.

For Fairfield County, only a parkway could both meet the "demands of modern motoring" and retain Connecticut's "old-fashioned pastoral appearance."²³ Only a parkway could protect land values and uncontrolled roadside development. Only a parkway could prevent the Merritt project from becoming a "waste of taxpayer's money and a blot on the landscape."²⁴

¹⁸ "Would Rename the Merritt Highway," Greenwich Press, 18 October 1934, p. 13.

¹⁹ Quoted in "Parkways Defined," Memorandum from U.S. Department of the Interior to the National Park Service, 1 March 1944, p. 2.

²⁰ See "Extension of Parkway to Connecticut Line," New York Times, 19 January 1936, p. 6 (10); "Gov. Cross Signs Bill on Merritt Parkway," New York Times, 14 June 1935, p. 25 (1).

²¹ State of Connecticut, "Section 427c: Parkways and Freeways," in Chapter 79: Highways, Bridges and Ferries, Supplement to Connecticut General Statutes, 1939.

²² Fairfield County Planning Assoc., "A Highway and a Parkway are Two Different Things," Merritt Parkway Number (February 1934):5.

²³ "Connecticut's Charms," editorial, New York Times, 17 March 1929, p. 4 (3).

²⁴ "The Merritt Highway," editorial, New York Times, 3 June 1935, p. 16 (1).

Realizing the importance of these issues to the public, the highway department began making assurances in the early 1930s that it would build the route as a parkway. In 1932, Warren Creamer confidently told a group of Connecticut realtors that "from the commissioner on down it is our wish to make this road a thing of beauty as well as utility."²⁵ The following year, Commissioner Macdonald promised that "the parkway plan of development [would] prevail on the roadsides," that commercial vehicles would not be permitted, and that a wide 300' right-of-way would be purchased.²⁶

Unfortunately, reports leaking out of the Connecticut Highway Department contradicted these public statements: plans drawn up for the Merritt had no provisions for a park setting; landscaping would not be considered until after the road was constructed; and food concessions and billboards would be allowed on the roadside because the state needed the revenue that such commercial development would provide.²⁷ Exacerbating the situation was the fact that the commissioner had not proven himself particularly sensitive to issues of roadside beauty in the past. As a construction engineer, Macdonald was notorious for his "inclination to cut wide swaths through the countryside without proper regard for contours or esthetics."²⁸ There was no reason to believe that his attitude toward landscape design had suddenly changed simply because of the magnitude of the Merritt project.

By the time of the Merritt's ground-breaking ceremony in July 1934, uncertainty about the road's design was mounting. Despite highway department guarantees, the public did not believe that the Merritt was to be a parkway "either in law or in fact."²⁹ Congressman Schuyler Merritt took on the issue in his address at the ceremony and attempted to rally public support for a parkway:

This great highway is not being constructed primarily for rapid transit but for pleasant transit. This county is fortunate in having such beautiful backcountry and it is our great duty to see that these beauties are preserved.³⁰

Merritt's address was a call for direct and immediate action by politicians, planners, and Fairfield County residents, to insure that the road through their county would be a "real parkway, a thing of beauty" and not merely a "super-speedway."³¹

The Westchester County Example

If Fairfield County's parkway advocates needed to convince skeptics of the value of parkways over highways, neighboring Westchester County, New York, provided an exemplary model.

²⁵ "Merritt Favors Loan to Finance Highway Costs," Greenwich Press, 15 December 1932, p. 3.

²⁶ "Merritt Highway Plans Revealed by Macdonald; To ask for Bids in Month," Greenwich Press, 2 November 1933, p. 1.

²⁷ Kitchel, "Story of the Merritt Parkway, Part 3," Greenwich Press, 7 April 1938, p. 19; "Would Rename the Merritt Highway," p. 13.

²⁸ The Milford Turnpike is cited as a glaring example. See "Modern Highway," editorial, New York Times, 15 July 1934, p. 4 (4).

²⁹ "Merritt Highway," NYT, 16.

³⁰ "Congressman Urges Preservation of Beauty on Merritt Highway," Greenwich Press, 5 July 1934, p. 13.

³¹ "Congressman Urges Preservation of Beauty on Merritt Parkway," Greenwich Press, 5 July 1934, p. 13.

Westchester's parkways were the first in the country designed and built exclusively for the automobile. Begun in the 1910s, that county's parkway system had grown by the early 1930s into a series of north-south and east-west routes that fanned outward from the New York City line to Westchester County's northern borders at Putnam and Fairfield counties. These parkways performed four specific functions: they served as traffic routes within Westchester; they furnished recreation as pleasure drives; they served as "agreeable connecting links" with New York City, Long Island, and ultimately Connecticut; and, conditions permitting, they served as neighborhood parks.³²

The Bronx River Parkway, begun in 1913, was the county's first. In many ways it set the standard for all subsequent parkways in the region and beyond with its wide right-of way, grade separations, varied bridges, and naturalistic landscaping.³³ When completed in 1925, it became a major artery for both recreational and commuter traffic in New York. The success of the Bronx River Parkway led Westchester to undertake an extensive parkway-building campaign that included the Hutchinson River and Cross County parkways, both completed by 1928. As originally constructed, the Hutchinson River Parkway stretched north from the Bronx to Port Chester, just south of the Connecticut state line. The Cross County extended across Westchester from Yonkers to Mt. Vernon where it joined the Hutchinson River Parkway. For Fairfield County, these two parkways were the most important in the Westchester system, since they provided Fairfield with a direct and easily accessible route to New York City. Both the Hutchinson River and the Cross County parkways followed Westchester County's established design policy that stipulated "eliminating grade crossings, the harmonious uniformity of roadside and landscape development, and the architectural design of structures."³⁴

Westchester's parkways were controlled by the Westchester County Park Commission. Created in 1922 by Robert Moses, the commission was invested with broad legislative powers that Moses himself drafted. The commission had "sole and exclusive control and management" of the county's parkways before, during, and after construction.³⁵ Included within the commission's jurisdiction were all bridges, buildings, and land in a parkway's right-of-way. The commission had the authority to acquire land through purchase or condemnation and it was empowered to let contracts for any work and materials needed on the parkways. This considerable authority was a far cry from the meager advisory role to which the Merritt Parkway Commission was relegated.

Though the design and management of Westchester's parkways were important, the parkway's impact on Westchester was more significant for Fairfield County. As summarized by John Nolen and Henry Hubbard in Parkways and Land Values, this impact involved "benefits generally admitted, benefits through facilities of traffic, benefits through pleasure, and benefits in land valuation." The parkways provided an extensive program for the reclamation and preservation of Westchester's countryside and its "characteristic beauties"; they eased traffic congestion and provided a means of "rapid and relatively

³² John Nolen and Henry V. Hubbard, Parkways and Land Values, Harvard City Planning Studies, XI (Cambridge: Harvard University Press, 1937), 85.

³³ Some elements of the parkway's design were later refined or changed altogether, notably its median. See Chapters 11-14.

³⁴ Nolen and Hubbard, 82.

³⁵ Nolen and Hubbard, 75.

uninterrupted communication" between Westchester County towns; and finally, they contributed forcefully to county development and wealth by not only protecting, but increasing, the values of real estate frontages.³⁶

That Fairfield County looked with both envy and hope toward its western neighbor is demonstrated by the frequency with which Merritt supporters--including politicians, planners, and journalists--cited the Westchester system as a prototype for everything their own parkway could be. When Commissioner Macdonald first announced plans to make the Merritt a parkway, he stated that the new route would closely resemble the Hutchinson River Parkway.³⁷ When Helen Kitchel described early Fairfield County opposition to the Merritt, she wrote, "We do not know how long this resistance might have persisted if the parkways in neighboring Westchester County had not demonstrated their desirability."³⁸ When Schuyler Merritt spoke of the benefits of making the Merritt a parkway, he said that it would enable the people of Connecticut to proudly join hands with those of the Empire State.³⁹ And when the FCPA advocated building the Merritt as a parkway, it illustrated its report with numerous photographs of Westchester County parkways.⁴⁰

For its part, Westchester County was only too happy to serve as a model. Leslie G. Holleran, an engineer with the Westchester County Park Commission, reported that Connecticut was studying its parkway system because the neighboring state finally realized that "broad slabs of concrete are not what the citizens want."⁴¹ Westchester Commission member J. M. Wainwright stated that his county saw the Merritt as the "consummation" of their own system of parkways.⁴² In 1935, Westchester even decided to extend the Hutchinson River Parkway all the way to the Connecticut border so as to link directly with the Merritt. The New York Times called the Hutchinson extension and Merritt link "one of the most ambitious and important highway projects in the East."⁴³

Lobbying for a Parkway

Throughout the 1930s a broad coalition of civic-minded Fairfield County residents lobbied state and local legislators to first, insure that the Merritt would be built at all, and second, that it would be built as a parkway. The Fairfield County Planning Association (FCPA) was one of the most active and possibly the most powerful Merritt lobbyist. In publications, public meetings, slide presentations, and newspaper editorials, the FCPA stressed the importance of the Merritt to the county's development and

³⁶ Nolen and Hubbard, 72, 123.

³⁷ "Merritt Highway Plans Revealed by Macdonald," 1.

³⁸ Kitchel, "Merritt Parkway, Part 1," 1.

³⁹ "Congressman Urges Preservation," 13.

⁴⁰ FCPA, Merritt Parkway Number.

⁴¹ "Says Controls Add Traffic Problems," New York Times, 18 January 1929, p. 14 (1).

⁴² "Congressman Urges Preservation," 13.

⁴³ "To Extend Parkway Route into Connecticut," New York Times, 25 August 1935, p. 6 (11).

urged its immediate construction as a parkway. In 1933 the FCPA promoted the Merritt as part of a countywide program to provide adequate circulation for people and goods between New York and New England with "the least interference with desirable developments (CT-63-111, 112, 113)."⁴⁴ In 1934, it distributed a lengthy report dealing with all aspects of the Merritt and making specific recommendations concerning its design, location, and anticipated impact on Fairfield County.⁴⁵ In 1935 the FCPA appointed a subcommittee to its technical committee charged with making recommendations on the beautification of the Merritt to Fairfield County commissioners in advance of their special meeting to vote on the \$15 million bond issue recently authorized by the General Assembly.⁴⁶ From 1933 to 1939, as part of its annual legislative program, the FCPA either endorsed or denounced all state bills pertaining to the Merritt.

In 1934, when Rep. Helen Kitchel introduced a bill calling for the expansion of the Merritt Highway Commission's powers, the FCPA ardently supported it. The bill proposed that the commission be given "concurrent powers with the highway commissioner over the plan and design of the Merritt Parkway and the architectural features of bridges and structures thereon." When the Assembly appeared unwilling to broaden the commission's powers, the FCPA offered a substitute clause giving it authority only to "confer, consult, and advise" the Highway Commissioner.⁴⁷ When even this watered-down version was defeated, the Assembly noted that the Merritt would be built like any other state highway; if Fairfield County wanted additional beautification of the road, the county would have to pay for it. Several years later Kitchel and the FCPA did attain a victory of sorts: in 1939 when the General Assembly gave the highway commissioner the authority to alter the layout, construction, or use of all state parkways and freeways, the Merritt was excepted.⁴⁸

Despite its defeat, the 1934 bill galvanized support for the Merritt and more and more groups and individuals spoke out in favor of a parkway and its benefits for the county. The Connecticut Department of Motor Vehicles concluded a study funded by the Federal Emergency Relief Administration with the recommendation that the state should build the Merritt as a parkway and ban all commercial traffic from it.⁴⁹ The Fairfield County Republican organization passed a resolution that affirmed its party's support of a parkway and posited Republicans as the primary sponsors of the Merritt.⁵⁰ The Fairfield County branch of the State Federation of Women's Clubs called upon the General Assembly to formally change

⁴⁴ FCPA, "Circulation," Fairfield: The First Planned County in New England, 7.

⁴⁵ FCPA, Merritt Parkway Number, 4-10.

⁴⁶ "To Beautify Merritt Highway," New York Times, 13 June 1935, p. 25 (1).

⁴⁷ "Burke and Kitchel for Parkway Bill," Greenwich Press, 4 April 1935, p. 6.

⁴⁸ See State of Connecticut, "Section 428e: Alteration. Merritt Highway Excepted," in Chapter 79: Highways, Bridges and Ferries, Supplement to Connecticut General Statutes, 1939.

⁴⁹ Kitchel, "The Story of the Merritt Parkway, Part 7," Greenwich Press, 28 April 1938.

⁵⁰ "County G.O.P Acts on Highway Layout," Greenwich Press, 25 October 1934, p. 11.

the road's name from the Merritt Highway to the Merritt Parkway.⁵¹ Sen. John M. Taft of Westport went on record saying that if a parkway were built "many persons of means from New York state and other places would locate homes in Fairfield County."⁵² Finally, Schuyler Merritt announced that he would rather not have his name associated with the road if it was not going to be a parkway.⁵³ In 1935, lobbying by parkway advocates succeeded: with the ratification of Section 537c of the General Statutes, the name was officially changed to the Merritt *Parkway*.

Parkway Accessories

Now that a parkway was guaranteed by law, Merritt supporters concentrated on what the FCPA called "parkway accessories." They undertook new lobbying efforts to insure that appropriate bridges, service stations, guardrails, light standards, and other features would be installed along it. In addition to stylistic considerations, Merritt supporters were also concerned that any number of the desired accessories might be eliminated from the parkway's plans because of budgetary constraints. In August 1935, Fairfield County legislators began haggling over the cost of the Merritt. At issue, it seems, were standard parkway accoutrements that Commissioner Macdonald was arguing would cost between \$5 million and \$12 million beyond the original \$15 million estimate. With a \$15 million budget the roadways would be asphalt, the bridges would be concrete, the guardrails would be steel, and only \$250,000 would be available for landscaping.⁵⁴

According to Helen Kitchel, when these specifications were made public, "disapproval was quickly voiced." These voices, which included the FCPA, Federated Garden Clubs, and Greenwich Women's Republican Club, were especially opposed to concrete bridges. Concrete bridges, they argued, did not belong on a parkway because "no matter how well planted and screened the concrete may be it is not possible to make it conform to the wooded, rocky countryside."⁵⁵ Instead, they favored rustic stone bridges like those found on Westchester County parkways. Petitions calling for stone bridges were circulated and submitted to Macdonald by the Merritt Parkway Commission, but to no avail. Macdonald estimated that it would cost an extra \$9,000 per bridge to face them in stone.⁵⁶ Once again, if Fairfield County residents wanted additional beautification, they would have to pay for it themselves.

In the end a compromise was reached and Fairfield County legislators approved an additional \$5 million expenditure. With the new budget, the roadways would be concrete (preferable to asphalt because of its softer appearance); the guardrails would be rustic and wood; and the landscaping budget would

⁵¹ "Would Rename the Merritt Highway," Greenwich Press, 18 October 1934, p. 13.

⁵² "Burke and Kitchel for Parkway Bill," 6.

⁵³ "Would Rename the Merritt Highway," 13.

⁵⁴ "\$20 Million for Building of Merritt Parkway," Greenwich Press, 15 August 1935, p. 1.

⁵⁵ Kitchel, "Merritt Parkway, Part 7," 15.

⁵⁶ "\$20 Million for Building of the Merritt Parkway," 7.

increase enough to produce "a pleasant parkway appearance."⁵⁷ The bridges, however, would still be concrete, and parkway lobbyists were forced to concede defeat in the face of fiscal realities.

Suggestions for further enhancement of the Merritt continued to surface periodically. In 1936, a proposal for a system of bridle trails to parallel the Merritt garnered wide support from parkway advocates. Numerous equestrian paths already existed in Fairfield County, most of them on privately owned land leased to equestrian and hunting associations. There was general agreement in Fairfield County that bridle trails meandering through the countryside not only contributed to the charm of the area, but attracted the "right type of citizen," and offered a real opportunity to develop tourism in Connecticut.⁵⁸ To this end, a statewide bridle trail system was proposed in addition to those along the Merritt.

Through purchases for the Merritt right-of-way, the highway department now controlled much of the land through which the already existing trails passed. It soon became apparent to Fairfield County's riders and hunters that the Merritt's roadways and bridges would sever most of their "equestrian arteries."⁵⁹ The bridge (CT-66) constructed in Greenwich in 1935 to carry the Merritt over the Glenville Water Company stream included a separate bridle path so riders could pass under the parkway, but this seems to be an exception, not a rule. To compel the highway department to include underpasses and overpasses for equestrians a number of state and county groups joined forces--the FCPA, Connecticut Forest and Park Association, Fairfield Bridle Trails Association, and Merritt Parkway Bridle Association, an organization founded specifically to lobby for the trails.

By fall 1938, the groups had rallied enough support for their cause, including the backing of the highway commissioner, that the attorney general authorized construction of bridle trails along the parkway. A few months later this ruling was overturned by a newly appointed state attorney general. In February 1939, the General Assembly passed a bill authorizing the highway commissioner, or private groups and individuals to whom he issued permits, to construct and maintain bridle trails paralleling the parkway. The bill allowed the commissioner to connect existing trails with new ones and to build underpasses and overpasses where needed. Funds to pay for the Merritt trails would come from public subscription or private capital.⁶⁰ While no underpasses or overpasses were constructed after the passage of this bill, it is unclear whether any additional bridle trails were built. However, the pre-existing bridle trails along the parkway were maintained by the highway department and promoted by the Merritt Parkway Commission as part of Connecticut's statewide system.⁶¹

⁵⁷ "\$20 Million for Building of the Merritt Parkway," 7.

⁵⁸ Fairfield County Planning Association, "Bridle Trails Have Sound Economic Value," Fifteenth Anniversary Number 7 (August 1939): 14; Theodore E. Buell, "Proposed System of Bridle Paths," Connecticut Circle (April 1939), 30.

⁵⁹ FCPA, "Merritt Parkway Severs Bridle Paths," 10.

⁶⁰ State of Connecticut, "Section 423e: Bridle Paths," in Chapter 79: Highways, Bridges and Ferries, Supplement to Connecticut General Statutes, 1939. See also "Bridle Trails Bill Hearing Date Awaited," Fairfield News, 10 February 1939, p. 8.

⁶¹ Merritt Parkway Commission, Rules and Regulations Governing the Use of the Merritt Parkway (4 February 1946).

Chapter 4:
Land Acquisition and Right-of-Way

Given Fairfield County's passionate commitment to the Merritt, it is not surprising that the 1938 land-acquisition scandal prompted collective community outrage and dominated the parkway's press coverage that year, nearly overshadowing its opening ceremony. A grand jury investigation, six indictments, and the resignation of a high-ranking state official were at least as interesting as ribbon-cuttings, speeches, and photo opportunities, especially since the Merritt Parkway was Connecticut's largest public works project. Even as the first motorists rushed along the Merritt's newly opened sixteen-mile stretch in early July 1938, real estate agent LeRoy G. Kemp was explaining why he burned documents relating to right-of-way purchases. About these discordant images, the New York Times wryly observed that the Merritt Parkway was "by no means perfect."¹

By the time Kemp stood trial in 1938 he had been Connecticut's purchasing agent for more than six years, during which he systematically defrauded the state through phony land sales, inflated purchase prices, and illegal commissions. In 1932 when Commissioner Macdonald hired Kemp, it was standard practice for the Connecticut Highway Department to employ "real estate specialists," or right-of-way agents, to handle land acquisitions for new roads and highways.² In the early 1930s widespread public opinion held that these agents were unscrupulous con men, so much so that Better Roads extolled their honesty, reliability, and the indispensable services they provided in more than one article.³ Given the prevailing attitude, it seems likely that Macdonald selected Kemp because of his impeccable credentials and respectability. Kemp was not only a well-connected realtor, he was also a former state representative from Darien and a prominent Fairfield County Republican.

Land acquisitions for the Merritt actually began in April 1931 before Kemp was hired. Prior to the start of acquisitions, the highway department's Bureau of Boundaries and Rights-of-Way collected data about all properties along several proposed routes to determine which was the most feasible from a land-cost perspective. Using town clerks' records, title searches, assessor maps, surveys, and field inspections, the bureau's staff prepared detailed profiles about each property, which right-of-way agent Kemp would later use to negotiate acquisition of the land. According to Macdonald, after the Merritt's final route was selected, its actual location was kept as secret as possible to avoid any speculation that would drive up land prices,⁴ though it was later alleged that the routes had been leaked to abet just such speculation.

¹ "End of Traffic Nightmare," editorial, New York Times, 1 July 1938, p. 18 (1).

² Griffenhagen & Associates, Connecticut State Highway Department: A Report on the Organization and Procedure of the Department (Hartford: State Highway Department, 1931), Chapter VII, 10.

³ See for example, W. E. Hoffman, "Meet the Right-of-Way Man," Better Roads (May 1934), 27-28.

⁴ John A. Macdonald, "The Merritt Parkway," Connecticut Society of Civil Engineers Annual 2 (1938): 26.

Once the right-of-way was determined, land for the Merritt was acquired either by condemnation or outright purchase. The condemnation process was simple. As made clear in the 1931 General Statutes, if a property owner refused to sell land needed "for the original layout" of any state highway, the highway commissioner had the authority to appropriate that land for public use.⁵ Once the land was condemned, a court hearing determined the amount of damages the owner would receive for the property. For outright purchase, state agents negotiated privately with an owner for the transfer of title at a price acceptable to both parties. Often in such negotiations, the land owner would agree to sell only if certain conditions were met. According to Macdonald, in many cases involving the Merritt, the state agreed to buy more land than was needed for the 300' right-of-way or it would change the proposed route to avoid a residence, natural landmark, or the property of a wealthy and/or influential person.⁶ In his acquisitions for the Merritt, LeRoy Kemp relied almost exclusively on outright purchase. In the land scandal that followed, the excessive prices Kemp negotiated and the extent to which he tied land acquisitions to special arrangements dramatically illustrated the abuses that could accompany the outright-purchase method.

Kemp later claimed in his own defense that he was instructed by Commissioner Macdonald to avoid condemnations⁷; this was hardly a revelation. The highway department's preference for outright purchase over condemnation was both well-known and generally accepted. Highway officials claimed that condemnation was simply too costly and too time consuming: court awards for land were often much higher than department awards, and condemnation proceedings seriously delayed land acquisition and hence construction.⁸ In addition, it is possible that Macdonald favored outright purchase because he wanted to avoid the kind of well-publicized and emotionally charged condemnation proceedings that took place in New York during the 1920s in the wake of rights-of-way battles over Long Island parkways. Whatever the reason, prior to the land scandal, the highway department actually prided itself on avoiding condemnations. Speaking at a banquet for Connecticut realtors in 1932, Kemp said that the lack of land condemnations indicated a high level of cooperation and good will between the highway department and property owners since mutually satisfactory agreements were reached without condemnation proceedings.⁹

By February 1936 Kemp had assembled nearly 27 miles of the proposed 38-mile route. The following year Commissioner Macdonald detailed the difficulties encountered in acquiring the Merritt land from a variety institutional and individual owners--New York City banks and investment houses, recently transplanted New Yorkers, wealthy Fairfield County natives, farmers, and one British citizen--none of whom wanted their weekend estates, ancestral homesteads, or family orchards bisected by a highway, not

⁵ State of Connecticut, "Section 528c: Commissioner May Take Land," in Chapter 80: State Highways and Bridges--Part II, Supplement to Connecticut General Statutes, 1931.

⁶ Macdonald, Connecticut Society of Civil Engineers Annual, 28-30. Although engineer Earl Wood claimed that parcels of land larger than the 300' right-of-way were purchased "to preserve the scenic appearance of the marginal land abutting the roadway," Macdonald's less romantic explanation seems more accurate. See A. Earl Wood, "The Merritt Parkway History and Plan," Connecticut State Journal (August 1935): 33.

⁷ "Defends Merritt Action," New York Times, 14 December 1938, p. 4 (1).

⁸ Griffenhagen & Associates, 10; John A. Macdonald, Highway Commissioner's Report on the Highway Department and Merritt Parkway to the Governor (Hartford: State Highway Department, March 1938), 46.

⁹ "Merritt Favors Loan to Finance Highway Costs," Greenwich Press, 15 December 1932, p. 3.

even a landscaped one. Of Macdonald asserted that the "net that can be drawn by people of influence is tremendous; the strength of that net-work is appalling."¹⁰ He further asserted that only through the diplomatic negotiations of "local men" like Kemp were land acquisitions brought to a successful conclusion. In one instance, Macdonald explained that the state's agent was able to thwart a deal cooked up by a Fairfield County "combine," which would have forced the state to buy 400 acres of land in Greenwich, only a small portion of which was required for the Merritt right-of-way.¹¹ The state, he concluded, had been saved tremendous time and money by its local agents. Given the revelations of a few months later, statements like this are all too ironic.

Beginning in fall 1937 reports began to surface in local newspapers that excessively high prices had been paid for land acquired for the Merritt right-of-way. As Public Works Commissioner Robert H. Hurley had been investigating the Merritt land acquisitions for several months, it is reasonable to assume that early disclosures originated in his office.¹² By December, the New York Times had picked up the story, reporting that state Rep. Stanley Mead received \$100,000 for twenty-eight acres of land assessed at \$14,050.¹³ At this point Governor Cross called for a formal inquiry into parkway land-acquisitions, instructing Hurley to continue his investigation and Macdonald to begin one immediately. Cross also ordered the publication of all Merritt land transactions, including the state's purchase prices, which in some cases were fourteen times higher than the land's assessed value.¹⁴

By the end of the year Macdonald was on the defensive. He claimed that the prices paid for land were "about the standard for Fairfield County," and justified his policy of outright purchase over condemnation, because "the state takes a licking in condemnation suits."¹⁵ Nonetheless, he filed condemnation proceedings to acquire forty-five parcels of land in Westport and Fairfield, the only land still needed for the Merritt's right-of-way. In the wake of the publication of excessive land-purchase prices, these few condemnations were too little and too late to repair the damage already done.

Early in January 1938, Fairfield County prosecutors, who had been conducting their own investigation, asked the Connecticut Superior Court to convene a grand jury, which it did at the end of the month.¹⁶ Such a move gave new seriousness to the Merritt investigations. The New York Times reported that "only twice recently in any Connecticut county, and not within memory in Fairfield County,

¹⁰ Macdonald, Connecticut Society of Civil Engineers Annual, 28.

¹¹ Macdonald, Connecticut Society of Civil Engineers Annual, 28.

¹² See Chapter 5 for a discussion of the political motivation of Hurley's investigations.

¹³ "Parkway Inquiry Brings in Jurist," New York Times, 19 December 1937, p. 22 (1).

¹⁴ "Gov. Cross Seeks All Parkway Data," New York Times, 24 December 1937, p. 8 (1); "Highway Inquiry Jolts Connecticut," New York Times, 2 January 1938, p. 6 (4).

¹⁵ "\$4 Million Spent for Parkway Land," New York Times, 23 December 1937, p. 16 (1); "Parkway Inquiry Widened by Cross," New York Times, 25 December 1937, p. 24 (1).

¹⁶ For a complete discussion of the grand jury, see Charles P. Morton, "The Merritt Parkway Scandal," New Canaan Historical Society Annual 11 (1990-91), 17-23.

has a grand jury been convened for anything other than a capital offense."¹⁷ The grand jury focused on the activities of state agent LeRoy Kemp, the first witness subpoenaed. Commissioner Macdonald and Merritt project engineer Warren Creamer were also called to the stand, and documents they possessed relating to the Merritt were subpoenaed. In March the grand jury voted to indict three men in connection with the Merritt land deals. Kemp and two other Fairfield County real estate agents, Thomas Cooke and Samuel Silberman, were accused of conspiracy to defraud the state. It was charged that in nearly sixty transactions for which Cooke and Silberman represented land owners, they split commissions with Kemp who, representing the state, had offered purchase prices well over the assessed value of the land.¹⁸ Eventually the state sued Kemp to recover \$76,000 worth of commissions that he received from these right-of-way deals.

In May, the grand jury voted to indict three more persons on charges of conspiring to defraud the state. This time three Fairfield County women--one real estate agent and two housewives--were charged in connection with deals they made with Kemp, Cooke, and Silberman. The deals included selling the same house to the state twice and buying land at very low prices after Kemp had refused to buy it, only to have Kemp buy it from them at a considerable profit. Eventually only LeRoy Kemp was convicted on these charges, but the grand jury and the investigations that preceded it produced two other significant results. First, the highway department agreed to make all subsequent land acquisitions through condemnation. Second, John Macdonald agreed to resign as highway commissioner.

Though the revelations of the Merritt land acquisitions caused a sensation in Connecticut, this kind of highway graft was not uncommon in the 1930s. The Merritt scandal was at least notorious enough, however, for Norman Bel Geddes to single it out in his 1940 Magic Motorways as a particularly egregious example of the kind of corruption impeding the construction of modern highways in America. The only reference to the Merritt Parkway in the book concerns the land scandal, in a two-page summary of Kemp's misdeeds accompanied by a photograph of the newly opened parkway with a caption reading: "Connecticut gets a highway--graft up to \$10 million."¹⁹

¹⁷ "Grand Jury in Merritt Inquiry," New York Times, 8 January 1938, p. 18 (1).

¹⁸ "Merritt Road Jury Votes to Indict 3," New York Times, 19 March 1938, p. 13 (1).

¹⁹ Norman Bel Geddes, Magic Motorways (New York: Random House, 1940), 178-79.

Chapter 5:
Politics and the Merritt Parkway

Macdonald versus Hurley

Highway Commissioner Macdonald's resignation in April 1938, at the recommendation of the Fairfield County Grand Jury, was the culmination of a long-brewing conflict that had as much to do with politics as it did with the Merritt's land acquisition. Despite the election of Democratic Gov. Wilbur Cross in 1934, Connecticut state government was still a Republican stronghold. Many state officials, Macdonald chief among them, were Republican hold-outs appointed by preceding administrations. In the mid 1930s these Republicans came under fire as Public Works Commissioner Robert A. Hurley, a Democrat, targeted Macdonald and the highway department for what amounted to a hostile take-over.

With a \$20 million annual budget, far-reaching authority, and responsibility only to the General Assembly, the highway department was one of the most powerful agencies in state government. Indeed, since Macdonald took control of the department in 1923 he had consolidated its powers and increased its influence through active construction campaigns, reclaiming highway rights-of-way, and completely reorganizing all department bureaus. The Merritt Parkway, as the largest and most important project in the department's history, was to be the supreme accomplishment of Macdonald's "political and road-building dynasty."¹ Instead, it became that dynasty's undoing.

In The Powerbroker, Robert Caro writes, "the construction of parkways--like the construction of conventional highways--was a potential source of great wealth to politicians" because parkways meant construction contracts and real estate transactions.² As already discussed, the Merritt was no exception. And though Macdonald was not, strictly speaking, a politician, in his fifteen-year tenure at the highway department he certainly acquired the trappings of an influential political boss. Hence, it is not surprising that he was unwilling to relinquish absolute control of the parkway to the Merritt Parkway Commission. It is also not surprising that other state officials looked with envy at Macdonald's commanding authority.

In April 1937 Public Works Commissioner Hurley wrested at least partial control of the highway department away from Macdonald with the passage of the Department of Public Works Act. This legislation granted Hurley jurisdiction over all highway construction and maintenance for a period of seven months, during which he mounted an exhaustive, if biased, investigation into the workings of the highway department. Hurley reported his findings to the governor in January 1938, though much of the information had been leaked to the press the previous month. His Report on the Highway Department and Merritt Parkway to the Governor was a scathing condemnation of the internal procedures and external activities of the highway department, including administration, land acquisition, engineering, landscaping,

¹ Moses Berkman, "Paved with Good Intentions," Connecticut Circle (February 1938), 15.

² Robert Caro, Powerbroker: Robert Moses and the Fall of New York (New York: Alfred Knopf, 1974), 207.

and construction.³ Much of the report focused on the Merritt and its well-founded charges were the impetus for the subsequent inquiry that led to Macdonald's resignation. Nonetheless, Hurley's charges of wrongdoing, mismanagement, and carelessness concerning the Merritt must be viewed as politically motivated, designed to reflect well on the public works commissioner when he aspired to higher office. In this light, the Merritt was but the most convenient and high-profile means with which Hurley could discredit Macdonald and the whole highway department.

Throughout the report Hurley contended that the highway department was disorganized, inefficient, and wasteful. Hurley charged, for example, that the department's bureaus each operated as a separate unit, with no evident cooperation, often resulting in re-grading, re-paving, or re-landscaping the same portion of a given road. To illustrate this point Hurley cited several instances along the Merritt where, after the Bureau of Engineering and Construction prepared plans for cutting slopes and contracted out the work, the Bureau of Roadside Development came along and recut the same slopes to a different angle.⁴ Hurley also asserted that the highway department's road-building projects, including the Merritt, lacked adequate planning and "sound engineering methods," that workmanship was consistently shoddy, and that inspection of contracted work was exceedingly ineffective.⁵

One of Hurley's most widely published allegations involved the Lapham Oak, along the Merritt in New Canaan. Here, Hurley charged that because of an informal and improper agreement between the Bureau of Rights-of-Way and the property owner, the tree was not properly plotted on the engineering plans. When built, the roadway could not follow its original course and was instead forced into a severe "kink" that made the parkway "even more dangerous than originally planned."⁶ Though Hurley supplied a photograph of an extremely sharp curve around the tree, his image was likely distorted for dramatic purpose by a carefully chosen perspective, as a view of the same tree published by Commissioner Macdonald makes clear (CT-63-95, 96, 97). The Lapham Oak, then 75 years old, became something of a *cause célèbre* in New Canaan when locals feared the highway department was going to raze it. When the tree was spared, the community rejoiced and countered Hurley's charges with laudatory letters to the governor and editorials in the New Canaan Advertiser.⁷ For his part, Macdonald asserted that it was his "sense of appreciation of the beautiful" that preserved the historic tree.⁸

Macdonald answered Hurley's charges point-by-point in his own report to governor, published in February 1938. He maintained that Hurley had no legal grounds for conducting an investigation of his department and that his methods were "under-cover" and, Macdonald implied, underhanded. The

³ Robert A. Hurley, Public Works Commissioner's Report on the Highway Department and Merritt Parkway to the Governor (Hartford: State Commission of Public Works, February 1938).

⁴ Hurley, 4.

⁵ Hurley, 3-12.

⁶ Hurley, 7.

⁷ Macdonald reprinted these in his own report to the governor. See John A. Macdonald, Highway Commissioner's Report on the Highway Department and Merritt Parkway to the Governor (Hartford: State Highway Department, March 1938), 77-78.

⁸ Macdonald, Highway Commissioner's Report. . . to the Governor, 76.

report itself, Macdonald argued, consisted of nothing but "generalizations, misrepresentations, and exaggerations."⁹ While Macdonald convincingly refuted a number of Hurley's charges against the department, he was clearly on the defensive and ultimately, his explanations were not satisfactory enough to save his job.

In the end, the Macdonald/Hurley conflict backfired for the Democrats. Although they succeeded in deposing Macdonald, public opinion had turned against them. In the 1938 gubernatorial election, the Connecticut Republican organization capitalized on Governor Cross's early reticence about investigating the Merritt charges, turning it into a political liability. Even Connecticut Socialists entered the fray, denouncing the "misdeeds" of the Democratic administration at their state nominating convention.¹⁰ The political fallout resulted in a Republican, Raymond E. Baldwin, recapturing the governor's seat.

Bridges Under Fire

Besides the land-acquisition scandal, the Hurley report was the catalyst for one other inquiry into the highway department's handling of the Merritt Parkway. Throughout his report, Hurley charged that there were a number of flaws in the parkway's design. While Macdonald dismissed most of Hurley's allegations out of hand, one in particular was serious enough to warrant not only a detailed rebuttal from the highway commissioner, but an independent investigation ordered by Governor Cross.

Specifically, Hurley criticized the design of the Merritt's bridges, which he argued were a serious safety hazard to all parkway drivers. For most of the parkway's length, the median--what Hurley called the "planting space or separation strip"--is 21' wide, but the strip narrows to 16" as the roadway passes under each bridge, then gradually widens back to 21' until it reaches the next bridge. Hurley attributed this convergence to the insufficient clear span of the bridges, caused by a lack of foresight on the part of their designers.¹¹ This design was faulty, Hurley argued, because it brought cars dangerously close to each other and to the bridge itself. At night it was especially perilous because the 16" unplanted strip offered drivers no protection from the glare of oncoming headlights. Hurley concluded rather sensationally that there was no remedy for "this particular error in design other than that of rebuilding all of the bridges on the parkway."¹²

Actually, as Macdonald made clear in his answer to Hurley's charges, the design of the bridges was not at fault. The pavement width under each bridge on the parkway was 60', so that with two 26' roadways it was still possible to have an 8' median without narrowing the lanes.¹³ But this answer begs the question, since Hurley did not criticize the width of the lanes. The width of the median was at fault, and although Macdonald ably demonstrated that the bridges were of sufficient span to permit an 8' median underneath, he does not explain why the highway department chose to make them only 16" wide.

⁹ "Macdonald Answers Hurley Charges," Engineering News-Record 120 (10 March 1938): 353.

¹⁰ "McLeary is Nominated to Head State Ticket," New York Times, 28 August 1938, p. 13 (1).

¹¹ Hurley, 12-13.

¹² Hurley, 14.

¹³ Macdonald, Highway Commissioner's Report. . . to the Governor, 83.

Though Macdonald challenged Hurley's assertion that a narrow median was dangerous--"can he say definitely that accidents will increase as the width of the dividing strip decreases?"--he does not take into account the psychological impact that the convergence of traffic lanes would have on drivers travelling at high speeds.¹⁴

With the two commissioners at an impasse, in January 1938 Governor Cross called on former highway commissioner Charles J. Bennett to mediate the dispute. Bennett, still active as an engineer in Hartford, was instructed by Cross to investigate the Merritt from a design standpoint, with special attention to the parkway's bridges. Two months later Bennett furnished the governor with a 2,000-word report that detailed his findings and offered specific recommendations.¹⁵

Overall, Bennett found the Merritt, including the bridges, to be an "excellent piece of construction."¹⁶ But he did recommend that the highway department rebuild the converging bridge approaches "for the sake of appearance and safety of driving."¹⁷ Rather than narrowing the median starting at 500' from each bridge, the narrowing would start at 1,000' from each bridge. According to the New Canaan Advertiser, this would "greatly reduce or eliminate" the much-criticized convergence of the traffic lanes.¹⁸ Commissioner Macdonald agreed to Bennett's recommendations and, in addition, instructed his engineers to draw up tentative plans to widen the median itself to no less than 8' as it passed under the parkway bridges, but these plans were never carried out. Although Commissioner Hurley planned to respond publicly to the Bennett report, Governor Cross put an end to the "protracted row" over the Merritt's design by announcing that "the bridge controversy is a closed matter."¹⁹

Highway Department Public Relations

In 1938, at the height of the Merritt Parkway land scandal, the Connecticut Circle magazine wrote that over the years Commissioner Macdonald had cultivated a prestigious public image for himself and the highway department through strategically planned publicity releases to local newspapers.²⁰ Macdonald realized that the press was an invaluable ally when the highway department needed to convince Connecticut legislators or voters that a controversial or expensive project, such as the Merritt Parkway, was of great importance to the state. But Macdonald was also aware of the importance of appealing directly to the public, to interest them and involve them in highway department activities--at least those for which he welcomed public scrutiny. This is especially evident in the public relations campaign for the Merritt that Macdonald conducted through the highway department's various bureaus, especially the Bureau of Roadside Development.

¹⁴ Macdonald, Highway Commissioner's Report . . . to the Governor, 81.

¹⁵ The historians were unable to locate Bennett's report. Its contents are known only from newspaper and magazine articles.

¹⁶ Quoted in "The Merritt Road Design is Approved," Engineering News-Record 120 (31 March 1938): 451.

¹⁷ "Merritt Road Design is Approved," 452.

¹⁸ "Parkway Bridges Will be Wider," New Canaan Advertiser, 14 April 1938, p. 1.

¹⁹ "Approves Changes on Merritt Bridges," New York Times, 25 March 1938, p. 6 (1).

²⁰ Berkman, 15.

The Bureau of Roadside Development was in charge of all landscaping and improvements along Connecticut's state highways, hardly controversial responsibilities.²¹ But landscaping, of necessity, involved the removal of trees and shrubs and, as Macdonald pointed out, no phase of highway department activities "excited more comment" from the general public, as the Lapham Oak ordeal makes clear.²² A project of the Merritt's scale required the removal of a great many trees. Macdonald therefore attempted to assuage public outcry by actively promoting the landscaping of the parkway being carried out by the Bureau of Roadside Development. In 1934, for example, the bureau conducted special tours of the Merritt's right-of-way in Greenwich for state politicians and civic groups. Rep. Helen Kitchel was thrilled to hear her tour guide describe plans to transform "natural woodlands" into a "beautiful parkway" and the Greenwich Lions Club felt honored to be the "first official party to motor over the highway right-of-way."²³ In 1937, more than 200 members of the Connecticut Society of Civil Engineers inspected portions of the Merritt from Norwalk to the New York state line, in what was described as the "first formal examination" of the parkway.²⁴ Commissioner Macdonald himself addressed the engineers and the heads of the highway department's engineering and roadside development bureaus answered their specific questions. Tours such as these were only a small part of the highway department's overall publicity strategy.

In May 1935, the highway department arranged for the Greenwich Tercentenary Committee and the town's garden clubs to donate a 30'-tall elm, ivy, and bittersweet for landscaping the parkway at the Round Hill Road Bridge (CT-68) in Greenwich and to commemorate the landscaping with a bronze tablet mounted to a boulder on the roadside.²⁵ Macdonald's successor, William J. Cox, continued these promotional activities, possibly hoping to restore the department's tarnished reputation after the negative publicity of the land-acquisition scandal. Cox even included promotional work in the Manual of the Bureau of Roadside Development, as one of the responsibilities of roadside engineers, who were instructed "to draw plans and advise civic organizations and municipalities in the promotion of roadside development work."²⁶

In 1940 the highway department enlisted the help of Fairfield County garden clubs to mount what was described as the "most extensive roadside beautification program ever attempted in Connecticut." The clubs were asked to assist in "devising a plan for perpetuating the scenic beauty" of the Merritt.²⁷ If a club chose to participate, its members worked with the highway department to choose an appropriate site along the parkway for planting dogwoods and mountain laurels, Connecticut's state flower. Clubs purchased the plants from highway department nurseries for between \$15 and \$25 each and oversaw their

²¹ See Chapter 7 for a complete discussion of the Bureau of Roadside Development.

²² Macdonald, Highway Commissioner's Report . . . to the Governor, 76.

²³ Kitchel, "Merritt Parkway, Part 6," 15; "Lions Club First to Travel Merritt Route," Greenwich Press, 4 October 1934, p. 8.

²⁴ "Engineers View Merritt Parkway," New York Times, 1 October 1937, p. 16 (1).

²⁵ "Unveil Tablet Today on Merritt Parkway," New York Times, 7 May 1935, p. 27 (1).

²⁶ Manual of the Bureau of Roadside Development (Hartford: State Highway Department, 1945), 32.

²⁷ "County Garden, Civic Clubs to Help Beautify Parkway," unidentified newspaper, 14 July 1940. Collection of W. Thayer Chase.

planting and maintenance in conjunction with the highway department.²⁸ Commissioner Cox anticipated that several thousand trees and shrubs would be planted along the Merritt as a result of garden club participation. The highway department displayed not a little public relations acumen in its promotion of the beautification program. Jointly sponsored by the department, Merritt Parkway Commission, and State Development Commission, the program demonstrated Connecticut's commitment to roadside beautification even as it shifted the financial burden of that effort onto local groups. No doubt, the beautification program was also a goodwill gesture designed to dispel the public mistrust that developed during the late 1930s when the Merritt Parkway and state politics were hopelessly entwined.

²⁸ Fairfield Garden Club, Minutes of Executive Committee Meeting, 1 July 1940. Collection Fairfield Historical Society, Fairfield.

Chapter 6:
The Merritt Parkway Opens

Opening Fanfare

In summer 1938, four years after its construction began, the first section of the Merritt Parkway--18 miles from the New York state line in Greenwich to New Canaan Avenue/Route 7 in Norwalk--was finally ready for public travel. On June 29, with great fanfare, Gov. Cross, Congressman Merritt, Highway Commissioner Cox, and a host of other dignitaries cut the ribbons that officially opened the "most modern stretch of highway in the state."¹ The Merritt's bridges were jammed with spectators as a long motorcade drove slowly over the parkway's "fresh concrete" from Norwalk to Greenwich, stopping in each of the four towns along the route for ceremonies, photographs, and speeches. Gov. Cross congratulated the people of Fairfield County for their dedication to making the Merritt a reality. He described the Merritt as the most beautiful and scenic parkway in the country and called on Fairfield County to join him preserving the parkway's "state of pristine beauty and glory."²

Among the motorcade participants were numerous state and federal officials, the Fairfield County commissioners, members of the Fairfield County Planning Association, and former highway commissioner John Macdonald, whose presence was a source of political tension. At least one prominent guest, Congressman Alfred N. Phillips, refused to attend the opening ceremonies because Macdonald had been invited. Also in the spotlight was a New York City resident calling himself "Mr. First," who waited patiently to be allowed to drive onto the Merritt. As a self-proclaimed representative of the general public, Mr. First made it his hobby to be the first person over all new public works, be they bridges, highways, or parkways.

A crowd of a thousand people gathered in Greenwich to watch the final ribbon cutting at the state line. A party of New York officials--including representatives of Gov. Lehman, the Westchester County Park Commission, and the New York State Highway Department--met the Connecticut delegation and applauded "their sister state for the construction of the model highway." As Gov. Cross and Col. Frederick Greene of the New York State Department of Public Works shook hands across the state line, the Merritt Parkway and the Hutchinson River Parkway extension were simultaneously declared open. Greene congratulated Cross for Connecticut's "great accomplishment" and expressed his hope that the Merritt would soon reach across the entire state.³

Within two years of the official ceremonies, the highway department had completed the remaining 20 miles of the parkway, which it opened in three sections: from Norwalk to Westport in December 1938, from Westport to Trumbull in November 1939, and from Trumbull to the Housatonic River in

¹ William M. Greene and Richard Kimball, Traffic Accident Experience, Merritt Parkway June 29-December 31, 1938 (Hartford: State Department of Motor Vehicles, 1939), 1.

² "Parkway Opened with Ceremonies Here Yesterday," Greenwich Press, 30 June 1938, p. 1.

³ "Connecticut Opens Merritt Parkway" New York Times, 30 June 1938, p. 25 (1).

Stratford in September 1940. If the last sections of the Merritt opened with less hoopla than the first, the motoring public didn't seem to mind. They had already been driving "unofficially" on some portions of it for several months and were relieved that, at long last, they had an alternative to the Post Road.⁴

Traffic on the Parkway

Nearly 125,000 cars "rushed" onto the Merritt Parkway in its first four days of operation (beginning July 2) and by the end of summer 1938, the Merritt was averaging some 25,000 cars per day.⁵ According to the Greenwich Press, motorists, local residents, and police all declared the Merritt "a complete success and a blessing."⁶ Though traffic was dense, according to police, it flowed smoothly, even during crowded holiday weekends: "The cars didn't get bunched up at all, they just moved along in a steady stream."⁷

As the highway department completed each new stretch of the Merritt, the Connecticut Department of Motor Vehicles (DMV) installed automatic traffic recorders on both the eastbound and westbound routes. The counters revealed that the numbers of flow of motorists eastbound toward New England far exceeded westbound traffic.⁸ Nonetheless, the portions of the Merritt closest to New York City did create significant amounts of new traffic.⁹ Through-traffic in particular took advantage of the Merritt as an alternative to the Post Road. Since only 3 percent of all passenger cars on the old highway traveled east of New Haven, the highway department concluded that most "longer-haul passenger car traffic" had moved to the Merritt.¹⁰ At the same time, the Fairfield News reported that "cars bearing New York markers were particularly few and far between on the Post Road."¹¹

This situation was no surprise, since traffic surveyors had anticipated that out-of-state long-distance motorists would utilize the Merritt precisely because of its "through nature." Early Merritt traffic studies showed that cars registered in New York far outnumbered cars registered in Connecticut. Once the entire length of the parkway was completed, traffic surveyors predicted the presence of these "foreign cars" would increase because highways like the Merritt naturally attracted out-of-state "motor patronage."¹²

⁴ "Prepare to Open More of Parkway," Greenwich Press, 23 November 1938, p. 12.

⁵ "Rush on Merritt Parkway," New York Times, 4 July 1938, p. 2 (1).

⁶ "Parkway Takes Big Traffic Load from Post Road," Greenwich Press, 7 July 1938, p. 1.

⁷ "Parkway Takes Big Traffic Load," 4.

⁸ C. G. Nichols, "The Merritt Parkway," Roads and Streets (March 1940), 66.

⁹ New Haven Traffic Survey for the Wilbur Cross Parkway (Hartford: Highway Planning Survey, August 1940), 23.

¹⁰ H. W. Locher, A Plan for the Solution of the Post Road Congestion Problem (Hartford: State Highway Department, February 1952), 12.

¹¹ "Parkway Open As Experiment, Transient Business Suffers," Fairfield News, 13 October 1939, p. 1.

¹² Greene and Kimball, 4.

Meanwhile, on the Post Road traffic counts showed a 25 percent reduction in the number of weekday cars and a 50 percent reduction in the number of weekend cars--the lightest counts on the Post Road in twenty years.¹³ Though the Merritt did succeed in reducing Post Road congestion to "tolerable proportions," later traffic studies showed that by the early 1950s congestion was again equal to what it had been before the Merritt opened.¹⁴ Because the Merritt had so reduced its traffic, the Post Road now afforded increased opportunities for speeding. As a result, accidents on the Post Road, though 40 percent less frequent, were of a much more serious nature than they had been prior to the Merritt.¹⁵

Speeding was also a problem on the Merritt. The parkway had hardly opened before state troopers were clocking drivers going 80 mph, well above the 45 mph speed limit established by the Merritt Parkway Commission.¹⁶ During the Merritt's second year in operation the commission raised the speed limit to 50 mph, though 20 mph was enforced at the toll plazas. Following a federal government restriction, the Merritt's speed limit was decreased to 35 mph during World War II, but it was raised to 55 mph in 1947.¹⁷ By 1952 speeds of up to 90 mph and 100 mph were alleged as commonplace, with some motorists purportedly travelling as fast as 120 mph.¹⁸

During its first six months, eighty-nine accidents occurred on the Merritt Parkway. According to the DMV, this was "an exceptionally fine showing for a new highway," especially because none were fatalities.¹⁹ Unfortunately, the Merritt's fatality-free record did not last. In August 1939 a Brooklyn man was killed instantly when his car struck the infamous Lapham Oak tree in New Canaan.²⁰ By 1946, thirty-six people had died and 1,624 people had been injured as a result of accidents on the Merritt.²¹

The first analysis of Merritt accidents, undertaken by the DMV in 1939, enumerated 172 "causation factors" responsible for parkway mishaps; it reported that not a single one was related to faulty highway design. The Merritt was a "hazard-free" road with carefully calculated sight distances and gradual road deviations that did not limit driver vision. Thus, with "ordinary care" and "proper vigilance" drivers could avoid accidents on the Merritt, even in emergency situations. With carelessness,

¹³ Greene and Kimball, 4.

¹⁴ Locher, 1.

¹⁵ Greene and Kimball, 4; William C. Hansen, Report Submitted to Motor Vehicle Commissioner on October 11, 1938, Relative to Merritt Parkway Accidents (Hartford: State Department of Motor Vehicles, 1938), 2.

¹⁶ "Parkway Takes Big Traffic Load," 4. The Merritt Parkway Commission voted not to establish a separate police force for the Merritt, instead entrusting responsibility for enforcing the speed limit to the Connecticut State Police. See Greene and Kimball, 5.

¹⁷ Earle W. Osterhoudt, Merritt Parkway Speed Study (Hartford: State Highway Department, 1947), 2; "Speed Limit Raised," New York Times, 25 August 1945, p. 8 (1); "Three-Zone Speed Limit Set," New York Times, 3 August 1947, p. 41 (1).

¹⁸ "Parkway Safety," editorial, New York Times, 16 February 1952, p. 12 (1).

¹⁹ Hansen, 3.

²⁰ "Brooklyn Man Dies in Crash on Merritt Parkway When Car Hits Famous Oak Tree," New Canaan Advertiser, 10 August 1939, p. 1.

²¹ Osterhoudt, 26 and chart.

speeding, and tailgating cited as the most common causes of accidents on the Merritt, the DMV report concluded that it was not the engineering of the parkway, but rather the "state of mind" of the motor vehicle operator that was at fault.²²

As a result of the Merritt's enormous popularity with motorists, early plans to terminate the parkway at a junction with the Post Road in Stratford were scrapped in 1939.²³ Though Commissioner Macdonald had long predicted that a bottleneck would occur at such an intersection with the Post Road, until the parkway opened and traffic counts were completed, no one realized how severe that jam would be. New plans called for the parkway to continue eastward a few miles inland and cross the Housatonic River into Milford. From there the route would continue northeast toward Hartford and Boston as the Wilbur Cross Parkway.²⁴

The Toll Controversy

The glamour of the Merritt's debut faded quickly when Connecticut imposed a 10 cents toll on the parkway in June 1939. Two months before, Highway Commissioner William Cox had urged the General Assembly to authorize a toll on the Merritt to finance the Wilbur Cross Parkway--then being planned as the Merritt's northeastern extension. Cox projected that even a toll as low as 10 cents would bring immediate revenues of \$2,000 every day. He suggested that upon completion of the Wilbur Cross, the fee to use the Merritt would be lifted.²⁵ State legislators acted with surprising speed, authorizing the toll by the end of May and setting a date of June 21, 1939, as the first day of collection.²⁶

According to the New Canaan Advertiser, the highway department also worked quickly, "with a zeal that surpassed by far the construction of the parkway," to erect two prefabricated temporary tollbooths on the former Joyce estate in Greenwich, less than two miles from the New York state line (CT-63-79).²⁷ The booths were completed in the early hours of June 21, just in time for the collection of tolls to begin at 8 A.M. In 1940 the highway department erected permanent rustic-style wood tollbooths in Greenwich (CT-63-80), and made plans for a second permanent plaza just east of the Housatonic River Bridge in Milford.²⁸

²² Greene and Kimball, 5.

²³ There was also increasing pressure from Stratford business people to change the route. Upset because the Merritt's southward swing toward the Post Road would bisect their thriving downtown area and bring immeasurable amounts of new congestion, they campaigned for a bridge to span the Housatonic River and carry the parkway into Milford. See Helen Kitchel, "Story of the Merritt, Part VI," Greenwich Press, 28 April 1938, p. 15.

²⁴ George M. Mathieu, "New Miles on Parkway," New York Times, 24 September 1939, p. 3 (10); George M. Mathieu, "70-Mile Link on Merritt," New York Times, 4 August 1940, p. 6 (10).

²⁵ "Urges Toll on Merritt Road," New York Times, 25 April 1939, p. 25 (1).

²⁶ State of Connecticut, "Section 432e: Tolls," in Chapter 79: Highways, Bridges, and Ferries, Supplement to Connecticut General Statutes, 1939.

²⁷ "Parkway Toll Collected as Westchester Threatens with County Collections," New Canaan Advertiser, 22 June 1939, p. 8.

²⁸ The temporary toll station cost \$11,100 and the permanent booths cost close to \$50,000. See "Parkway Tolls Bring in \$487,000," New Canaan Advertiser, 27 June 1940, p. 10.

Public outcry over the toll was fast and furious. The Automobile Club of America and the Automobile Merchants Association of New York called for an immediate boycott of all business and vacation travel in Connecticut, declaring the Merritt toll a "political battle with motorists caught in the middle."²⁹ Fairfield County residents vigorously opposed the toll, viewing it as both a tax and a nuisance.³⁰ Their protests became especially fervent after Westchester County announced it would begin charging tolls on its parkways, thus increasing the amount that Fairfield commuters would have to pay to get to their jobs in New York City. Even before it went into effect, Fairfield County residents began pressuring their legislators to repeal it. As pressure from constituents mounted, legislators tried to turn the Merritt toll into a political issue. Gov. Baldwin responded by standing firm on the toll issue, implying that he would veto any repeal measure.³¹

No sooner had Connecticut announced its plans for a Merritt toll than Westchester County retaliated with its own plans for a 10-cents toll on every county parkway except the Bronx River Parkway. The plan exempted all New York state motorists from having to pay, but the legality of this proviso was questioned almost immediately. As the Westchester County Park Commission arranged for the toll issue to be debated at the county board of supervisors meeting in July, county politicians went on record supporting the tolls, described as a "counter irritant to the unfair action taken by Connecticut,"³² and its neighbor. Tit-for-tat statements such as, "If Connecticut people make us pay to ride over the Merritt Parkway, we will make you pay to go over our highways," surely made the opening-day speeches about regional cooperation seem like a distant memory.³³

Not surprisingly, both New York and Connecticut motorists vented their frustration on the editorial pages of the New York Times. New Yorkers complained they were being "soaked" by Connecticut, whose officials were described with epithets ranging from "rural chiselers" to dishonest, crafty, and cunning.³⁴ Connecticut motorists resented paying tolls on Westchester roads that had been completed years before just because that county wanted to get revenge on their state. At least one person noted how the tolls would effect motorists for whom an additional 30 cents or 40 cents per day was a real financial burden:

Motorists of the middle- and lower-income groups will be driven off the beautiful parkways and be forced to crawl in and out of the city through the traffic lights and heavy trucking of the Post Road.³⁵

²⁹ "Baldwin Defends Merritt Road Toll," New York Times, 23 June 1939, p. 7 (1).

³⁰ "Parkway Toll Collected," 3.

³¹ David W. Byrnes, "Connecticut Stands firm on Highway Toll Plans," New York Times, 25 June 1939, p. 10 (4).

³² "Westchester Asks Retaliatory Toll," New York Times, 18 June 1939, p. 31 (1).

³³ "Toll Plans are Set for Merritt Road," New York Times, 14 June 1939, p. 25 (1).

³⁴ "Arouses Opposition," Letter to the Editor, New York Times, 20 June 1939, p. 20 (1); "An Opinion of Connecticut," Letter to the Editor, New York Times, 28 June 1939, p. 20 (1).

³⁵ "Tolls Resented," Letter to the Editor, New York Times, 28 June 1939, 20 (1).

During the first few months that tolls were collected, traffic jams at the Greenwich toll plaza were severe. Eventually the highway department issued special "commutation cards," available for \$10 per year, to speed motorists through.³⁶ Local and regional newspapers tried to alleviate toll-plaza congestion by publishing detailed back-road directions that motorists could use to avoid the Greenwich toll-collection site.³⁷ Despite this option, most motorists paid their dime. During the first year, \$487,000 went into state coffers as nearly 5 million cars passed through Greenwich toll booths. A 1940 survey showed the toll had no impact on the ever-increasing volume of Merritt traffic.³⁸

The Impact of the Merritt Parkway

Though the completed Merritt Parkway had its most significant impact on the entire New York metropolitan region, one of the immediate and tangible effects was on Post Road businesses in Fairfield County. From the first weekend that the parkway opened in July 1938, restaurant and gas-station owners along the Post Road reported a large drop in the volume of business.³⁹ Fewer cars meant fewer customers. In Fairfield, for example, where a section of the Merritt was opened for a few days as an experiment in October 1939, merchants who relied upon the "transient trade" of motorists suffered noticeably. When the parkway closed on Sundays, however, business returned to normal.⁴⁰ Though local newspapers published no follow-up reports on the Merritt's continued effect on Post Road retail establishments, it seems likely that these early fluctuations were only temporary.

Just prior to the Merritt's opening, the New York Times sarcastically referred to traffic congestion in southwestern Connecticut as one of "the chief motoring traditions of the East."⁴¹ Once the Merritt opened, long-suffering Post Road motorists were only too happy to abandon this tradition. Not surprisingly, the Merritt proved enormously popular with drivers, not the least because it allowed New England-bound travelers from New York City, Long Island, and New Jersey to "roll along almost entirely on attractively landscaped express ways without intersection delays."⁴² Indeed, because of the quick and easy connections between New York and New England afforded by the Merritt, the New York Times reported that "weekenders desiring an easy day's jaunt" found the Merritt Parkway "much to their liking."⁴³

The Merritt not only meant freedom from Post Road congestion, it also meant reduced driving time between points of origin and destination. The Fairfield County Planning Association, for example,

³⁶ "More Tolls Near City," New York Times, 11 February 1940, p. 4 (10).

³⁷ "\$930 in Tolls Paid on Merritt Road," New York Times, 22 June 1939, p. 25 (1); "Parkway Toll Collected," 3.

³⁸ New Haven Traffic Survey, 23.

³⁹ "Parkway Takes Big Traffic Load from Post Road," 4.

⁴⁰ "Parkway Open As Experiment, Transient Business Suffers," Fairfield News, 13 October 1939, p. 1.

⁴¹ George M. Mathieu, "Merritt Parkway Aids Drivers," New York Times, 26 June 1938, p. 1 (10).

⁴² "70-Mile Link on Merritt," 6.

⁴³ George M. Mathieu, "New Road Northeast," New York Times, 12 November 1939, p. 1 (10).

had predicted that the Merritt would cut driving time between New York City and New Haven from four hours to two, and when it opened their estimates were correct.⁴⁴ Most travelers on the Merritt could save between thirty minutes to an hour per long-distance trip.

The increased accessibility that the Merritt afforded southwestern Connecticut was one of the most important components of the parkway's impact on Fairfield County, as a 1939 letter to the New York Times makes clear:

The Merritt Parkway brings New Canaan and Darien and Westport cheek to cheek with Times Square. Every real estate agent north of Westchester County will tell you that.⁴⁵

Even before the Merritt opened, it had already elevated the value of houses in Fairfield County's shore communities. Towns from Greenwich to Bridgeport--long "isolated" by the stifling Post Road traffic--experienced an increase in property values as the parkway neared completion.⁴⁶ Even in the undeveloped inland territory adjacent to the parkway, profitable real estate transactions and building starts were on the upswing as bankers, builders, and architects all reported booming interest among prospective residents looking to settle in Fairfield County year-round, for the summers, or on weekends.

By the mid 1940s, that booming interest had turned into a raging trend as New Yorkers attracted to towns and villages abounding with "country life, gardening and horses" increasingly settled in Fairfield County.⁴⁷ For New Yorkers who wanted to escape the miasma of the city without leaving the region, Fairfield County was the ideal destination. In terms of mileage it was close; in terms of attitude it was "stellar miles away."⁴⁸ The Merritt's role in the exodus to Fairfield County was blithely described by writer Page Dougherty:

When you drive up the Merritt Parkway, a superior highway running the full length of the county, New York seems to fall behind in geometric proportion to the mileage rolled up. Beyond much doubt, it was the opening of the parkway that helped precipitate the hegira to Fairfield County.⁴⁹

She concluded that county real estate agents were deeply grateful for the parkway because of the huge profits they were making from the sale of "farms" and "estates" to members of New York's "overall" and "party" sets. The fact that Connecticut had no income tax only enhanced the situation. This suburban migration was immortalized in Eric Hodgins' 1939 book Mr. Blandings Builds His Dream House, and the 1948 film version starring Myrna Loy and Cary Grant, in which a successful New York advertising executive trades his cramped Manhattan apartment for a tumbled-down Connecticut

⁴⁴ "Merritt Parkway Rapidly Unfolding," New York Times, 2 May 1937, p. 1 (2) and "New Miles on Parkway," 3.

⁴⁵ Ruth McKenney, "Merritt Parkway and Speeders," New York Times, 18 October 1939, p. 24 (1).

⁴⁶ "Merritt Parkway Rapidly Unfolding," 1.

⁴⁷ "Merritt Parkway Rapidly Unfolding," 3.

⁴⁸ Page H. Dougherty, "Capital of the Overall Set: It is Fairfield County," New York Times, 15 September 1946, p. 45 (6).

⁴⁹ Dougherty, 45.

farmhouse. By 1948 more than 10,000 commuters resided in Fairfield County and traveled daily to New York City and, according to the New York Times, their ranks were increasing by leaps and bounds.⁵⁰

By the late 1950s the residential development precipitated by the Merritt Parkway had become one of Fairfield County's abiding characteristics. Despite a statewide initiative to lure industry to Connecticut, Fairfield County had resisted attempts to place factories within its borders, opting instead for corporate headquarters and research laboratories. The heavily landscaped, campus-like settings of its 133 such complexes met "the aesthetic standards of the most obdurate suburban country squire."⁵¹ Even when they directly abutted the Merritt, as did the Sperry-Rand facility in Norwalk, the intrusion was considered inoffensive. Commenting on Fairfield County's preference for corporate campuses over factories, Gov. Abraham Ribicoff said the county could decide about its own "personality and how it wished to appear." Since the state would not "force its philosophy on any community," Fairfield County was free "to write its own ticket for the future."⁵² Of course, the county had been doing just that for more than three decades--since its first battle for the Merritt Parkway in the 1920s.

Praise, Criticism, and Boosterism

After the parkway opened local, regional, and national press scrutinized every feature along its thirty-eight miles.⁵³ On the whole, critical response to the Merritt was positive, with some of the parkway's features--notably the landscape--singled out for particular comment.⁵⁴ The New York Times consistently praised the Merritt's "lavish decorative scheme" of trees, shrubs, and flowers used to beautify the roadsides and median, frequently publishing lists that named the multitude of plants found on the parkway.⁵⁵ A writer for Buick Magazine was equally impressed by the Merritt landscape, which he described as a "countryside of unique, scenic beauty."⁵⁶ And as late as the 1960s, an analysis of modern freeway design cited the Merritt's "rich and sensitive" landscaping as an important contribution to American highways.⁵⁷ In addition to aesthetic concerns, contemporary reviewers also extolled the Merritt's safety features, from grade separations and planted medians to acceleration-deceleration strips, and curbside reflector buttons. Paul Hoffman's 1939 Seven Roads to Safety, for example, featured the Merritt as a model of good road design, noting that such roads were "steadily making the U.S. highway safer for motorist and pedestrian alike."⁵⁸

⁵⁰ "Fairfield Looks Ahead," editorial, New York Times, 21 August 1948, p. 14 (1).

⁵¹ Richard H. Parke, "Connecticut Acts to Lure Industry," New York Times, 3 December 1959, p. 43 (1).

⁵² Parke, 39.

⁵³ Though the Merritt received extensive coverage in popular newspapers and magazines and in the engineering press, it was all but ignored by the major architecture journals--in marked contrast to the coverage those journals gave to Westchester County parkways.

⁵⁴ See Chapters 10-14 for examinations of critical response to the Merritt's individual design features.

⁵⁵ "New Road Northeast," 1; "Connecticut Opens Merritt Parkway," New York Times, 30 June 1938, p. 25 (1).

⁵⁶ Quoted in "Writer Lauds Work on Merritt Parkway," Greenwich Press, 16 June 1938, p. 15.

⁵⁷ Christopher Tunnard and Boris Pushkarev, Man-Made America: Chaos or Control? (New Haven: Yale University Press, 1963), 167.

⁵⁸ Paul G. Hoffman, Seven Roads to Safety (New York: Harper and Brothers Publishers, 1939), 37.

Contemporary motorists valued the Merritt because they perceived it as a high-speed express route. Freed from the local and commercial traffic that so burdened the Post Road, in the late 1930s-40s the Merritt became a modern road *par excellent*--a super highway, a nonstop road, a modern thoroughfare, an ultra-modern highway.⁵⁹ Not surprisingly, one of the most dramatic descriptions of the Merritt was provided by former highway commissioner John Macdonald:

This modern four-lane divided parkway stands as the symbol of the dawn of a new era in highway engineering. Conceived with vision, boldly planned, and executed with vigor this project has been acclaimed by engineers and laymen alike as a signal accomplishment in highway transport.⁶⁰

Other responses were just as unequivocal, if less effusive. The Fairfield County Regional Plan Association, for example, called the Merritt one of the "outstanding additions" to its original master plan for the New York metropolitan region.⁶¹ Newspaper editorials hailed it as a "liberator for people hedged in local highways" and the "end of a traffic nightmare."⁶² Even in the 1950s, despite an increasing number of fatalities, the Merritt was still perceived as up-to-date. Calling it one of the oldest parkways in the country to meet "1952 standards for safety, utility and beauty," the New York Times observed that the Merritt's "straight stretches, sweeping curves, and excellent sight lines" were planned with more foresight than many later highways.⁶³

Not everyone was so positive toward the Merritt. Gilmore D. Clarke, one of the nation's leading landscape architects and the designer of Westchester County's parkways, criticized the Merritt as being out-of-date even before it was built. In a 1937 lecture at Yale University, Clarke argued that the Merritt was "extravagant in construction and antique in design."⁶⁴ Two years before he had assailed its bridges as relics of the "dark ages" of modern engineering, and called the whole parkway a "desecration to the countryside." In particular, Clarke found the Merritt's lay out faulty; in his estimation, it was hardly good engineering and certainly not good parkway planning. The Merritt was nothing but a "giant roller-coaster marked by ugly cuts and bridges and straight lines joined by set curves."⁶⁵ It should be noted that Clarke's vitriolic diatribes against the Merritt may have resulted at least in part from professional jealousy. He was likely offended that, while the Connecticut Highway Department studied Clarke's parkways closely, Commissioner Macdonald failed to offer him the opportunity to design the Merritt.

⁵⁹ See for example, George M. Mathieu, "Work Continues on Merritt Parkway," New York Times, 6 February 1938, p. 6 (11); "Writer Lauds Work on Merritt Parkway," 15; Arnold P. Olson, "History of the Merritt Parkway has been a Succession of Controversies," Fairfield News, 30 June 1939, p. 19; and Nichols, 66.

⁶⁰ John Macdonald, "The Merritt Parkway," Highway Commissioner's Biennial Report (Hartford: State Highway Department, 1940), 126.

⁶¹ From Plan to Reality Three: A Third Report of Progress on the Regional Development of New York and Its Environs, 1929-1941 (New York: Regional Plan Association, 1942), 11.

⁶² "Merritt Parkway," editorial, New York Times, 2 September 1940, p. 14 (1); "End of Traffic Nightmare," editorial, New York Times, 1 July 1938, p. 18 (1).

⁶³ "Parkway Safety," NYT, p. 12 (1).

⁶⁴ "Assails the Design of Merritt Highway," New York Times, 9 March 1937, p. 2 (1).

⁶⁵ "Calls Merritt Road Lay-out Desecration," Bridgeport Post, 4 May 1935, p. 1.

Clarke's criticism of the Merritt was largely the exception, though in 1938 the parkway received a thorough trouncing when it was lampooned in the "Social Statement" exhibition of the Silvermine Guild of Artists in New Canaan. In the mural "One Million Dollars a Mile," local painter George Shellhase depicted the Merritt wrecking havoc upon the serenity of Fairfield County. It cuts a huge gash through the countryside, razes old farmhouses, destroys beautiful trees, and even displaces a cemetery, disinterring its inhabitants. The parkway is represented as a single strip of concrete travelled, not by speeding cars, but by a lonely one-horse carriage.⁶⁶

More typical was the boosterism of Howard Hildebrandt's mural in the same exhibition. In standard social-realist style, his "Merritt Parkway" depicts heroic construction workers, engineers, and surveyors engaged in the herculean task of building Connecticut's great road.⁶⁷ The highway department no doubt appreciated Hildebrandt's somewhat glorified vision, since it was more in line with the department's view of the parkway as a public work. The department had celebrated its own achievements with sculptural reliefs on two Merritt bridges. The James Farm Road Bridge (CT-129) bears the department's "CHD" emblem and panels on the Burr Street Bridge (CT-110) in Fairfield depicts highway department employees as they constructed the Merritt.

The highway department promoted the Merritt throughout the 1940s in numerous brochures and tourist maps (CT-63-115, 116, 117, 118). Available at the service plazas in Greenwich, New Canaan and Fairfield, or from the Merritt Parkway Commission, the material was intended to help the motoring public achieve "maximum of use and enjoyment" of the new parkway.⁶⁸ Using drawings and photographs, they carefully explained not only the rules and regulations of the road (no picnicking, swimming, hunting, or shooting allowed), but also the purpose of the tolls and plans for a statewide parkway system. Tourist maps, designed mainly for out-of-state drivers, heralded the Merritt as Connecticut's "All-Year Gateway to New England" (a title it assumed from the Post Road) and the "New England Portal." Illustrated with photographs of the newly completed road, these maps often included a detailed history of the Merritt and information about signs, exits, and mileage--all meant to insure "trouble-free travel for visitors."⁶⁹

The 1939 New York World's Fair offered Connecticut an unparalleled opportunity to encourage out-of-state visitors to use its "Gateway to New England." Recognizing the potential pool of travelers that the World's Fair would invite, the Fairfield County Planning Association estimated that 5 million of the 60 million anticipated visitors would include a trip to New England on their "must list." Since this would be the first trip to New England for many fairgoers, the FCPA wanted to insure that their impressions of the region would be good, hence they advocated using the Merritt instead of the Post Road. In "How the Merritt Parkway Makes New England Easily Accessible to New York World's Fair

⁶⁶ Described in "Merritt Parkway in Guild's Mural Show," New Canaan Advertiser, 2 June 1938, p. 1.

⁶⁷ "Merritt Parkway in Guild's Mural Show," 1.

⁶⁸ "Merritt Parkway: Rules, Information, Map" (Hartford: Merritt Parkway Commission, 1945).

⁶⁹ "Official Map of Connecticut Highways" (Hartford: State Highway Department, 1949).

Visitors," the FCPA offered detailed directions for reaching Fairfield County from the fairground gates to the Merritt's Greenwich toll plaza.⁷⁰

The highway department also saw the value in promoting the parkway at the World's Fair. In the Connecticut State Exhibition, the highway department's display showcased the Merritt with an "accurate model" of the parkway's entire length and a "photographic mural" depicting "scenes of interest" and stressing the road's safety features. The display also emphasized the ease with which visitors could reach Connecticut from the fair, urging them to drive the Merritt for a few hours "to enjoy Connecticut's attraction."⁷¹

In 1941 the Shell Oil Company featured the Merritt Parkway in an advertisement for X-100 motor oil that capitalized on the "world of tomorrow" theme popularized by the New York World's Fair. A brightly color rendering depicts the parkway at the Greenwich toll plaza: beyond the rustic wood booths, smooth ribbons of concrete stretch out into the countryside, traversed by appropriately streamlined vehicles. According to the advertisement copy, the Merritt brought relief from the "dark ages of narrow, twisting, and interminable Main Streets," enabling lucky motorists to "sweep over the hills of Connecticut all the way to the fringes of New Haven" with only one stop sign (at the toll). With the Merritt Parkway --"a miracle road, engineered for sustained speed with safety"--in Connecticut, at least, the "road of tomorrow" had arrived today.⁷²

⁷⁰ Fairfield County Planning Association, Fifteenth Anniversary Number 7 (August 1939), 15.

⁷¹ "Connecticut Exhibits at the New York World's Fair," Connecticut Circle (May 1939), 13. Though the historians were unable to locate photographs of the display in the Connecticut State Library, such images may exist in the uncataloged 1939 World's Fair collections at the New York Public Library and the Queens Museum, both in New York City.

⁷² [Advertisement] Shell Motor Oil Co., Life, 19 May 1941, p. 20.

Chapter 7:
The Merritt Parkway Design Team

Organization of the Highway Department

In 1930, Commissioner John Macdonald undertook a major reorganization of the Connecticut Highway Department (ConnDOT), the second-oldest such department in the nation. This "modernization," as it was called, aimed to make the department more effective and more efficient by revamping the existing internal agencies into five new bureaus and consolidating the six existing state territories into four regions.¹ The reorganization plan, prepared by Griffenhagen and Associates of New York, was put in place during the 1931 fiscal year. The Merritt Parkway was the first large-scale project undertaken by the newly reorganized department.

The highway department's main function, divided among four bureaus, was to provide and maintain a system of trunk-line highways, including rights-of-way that were safe, attractive, reasonably fast, and adequately surfaced.² The Bureau of Highway Boundaries and Rights-of-Way established boundaries on all existing state roads and settled boundary disputes through title searches and land acquisition. The Bureau of Business Administration handled all non-engineering administrative and business activities, including the purchase and inventorying of department supplies and equipment. The Bureau of Engineering and Construction prepared all engineering and architectural plans necessary for the construction of highways, bridges, and other highway structures, and supervised their construction. The Bureau of Roadside Development conserved the beauty of state roadsides by landscaping where necessary and by protecting and maintaining existing trees and shrubs. The Bureau of Maintenance maintained, repaired, and improved highways, including resurfacing road pavements. In addition, this bureau controlled private construction activities within highway boundaries, marked all routes, and removed snow.

Highway planning and construction inspection for each of the state's four regions took place at offices in Hartford, New Haven, Milford, and Norwich. Each regional office was headed by a resident engineer of location and a resident engineer of construction. During the 1930s, three additional offices were set up in New Canaan, Fairfield, and Trumbull specifically for the Merritt Parkway. From these offices all reconnaissance, preliminary surveying, and necessary rights-of-way investigations were conducted, as well as later construction supervision and inspection.³ Each office included approximately sixteen engineers as well as several title searchers and clerks.⁴

¹ Fifty Years of State Highways in Connecticut (Hartford: State Highway Department, 1946), n.p.

² Information about the department's organization and function is taken from Griffenhagen and Associates, Connecticut State Highway Department: A Report on the Organization and Procedure of the Department (Hartford: State Highway Department, 1931).

³ Warren M. Creamer and Julia E. Fenick, History Outline of the Connecticut State Highway Department (Hartford: State Highway Department, June 1939), 27.

⁴ "Highway Department Opens Office Here for Merritt Parkway," Fairfield News, 15 May 1936, p. 1.

The Merritt Parkway--its bridges, landscape, and roadways--was the result of a collaborative effort by highway department staff designers. Some men, such as George L. Dunkelberger and, more recently, W. Thayer Chase, have been singled out for their individual contributions to the designs of bridges and landscape, respectively. But others, especially the designers of the parkway's civil-engineering elements, remain unknown; the parkway itself is the only testament to their significant contributions. The anonymity is not surprising. As an "in-house" project, the Merritt was a public work for the greater glory of the state of Connecticut and its citizens, not individual state employees. This attitude is well illustrated by a somewhat rhapsodic statement that the highway department issued in 1943:

We feel privileged to be working [for] that keynote of democracy-- the greatest good for the greatest number--in a most vital phase of our corporate life. Local roads that lead to peaceful homes and happy seclusion, urban roads that keep in flux with the teeming activities of a city, roaring highways that link the distant parts of our state into one great neighborhood--they form the living arteries through which pulses the life of a great and determinedly free nation.⁵

The Bureau of Engineering and Construction

The Bureau of Engineering and Construction was responsible for making plans and estimates for the construction and reconstruction of highways, bridges and related structures, letting contracts, and overseeing construction.⁶ These responsibilities were distributed among three divisions within the bureau. The senior highway engineer, who reported directly to the highway commissioner, was in charge of the bureau. The division heads--the senior highway designer, senior bridge designer, and engineer of contracts--reported to the senior highway engineer.

The Division of Highway Location and Design conducted all preliminary surveys, location surveys, and estimates. It was also responsible for finalizing road designs and establishing departmental standards for procedures, designs, and records. This division produced plots, plans, and the specifications for all engineering features of highway design. The engineer of highway location and design was assisted by one surveyor and one designer-drafter.

The Division of Bridges and Grade Separations designed all bridges and grade-separations structures. It also made surveys, inspections, soundings, and estimates for operating and maintaining bridges and ferries. The engineer of bridges and structures had one assistant who oversaw the design and drafting office.

Finally, the Division of Contracts and Construction brought together the plans and specifications prepared by the two other divisions. It "secured intelligent bids" for construction work and supervised, inspected, and approved all construction done under contract.⁷ The bureau established a separate unit of the bridge-design division specifically to handle designs for the Merritt Parkway.⁸

⁵ Connecticut Roads: A Report of the Bureau of Highway Planning Studies (Hartford: State Highway Department, January 1943), 47.

⁶ Griffenhagen and Associates, 42.

⁷ Griffenhagen and Associates, 46.

⁸ L. G. Sumner, "Bridges on the Merritt Parkway," Engineering News Record 119 (23 September 1937), 506.

Highway Department Engineers

Many engineers in the Bureau of Engineering and Construction contributed to the Merritt Parkway as drafters, designers, and supervisors. Biographies have been compiled for each of the four engineers who signed off on drawings.⁹ John Smith and Daniel H. B. Starr signed the construction drawings, and Leslie G. Sumner and John F. Willis signed structural drawings. While none of these men did the actual drafting, within the highway department hierarchy, they were the primary reviewers of the drawings, and as such, their contribution was important to the parkway's final design. Biographies of Arthur W. Bushell and Warren M. Creamer are included because each played an important role in the parkway's planning and construction. Bushell oversaw the letting of contracts and the inspection of contracted work. Creamer oversaw surveying and land-acquisition along the parkway's route. The information contained in these biographies was compiled mainly from Connecticut Society of Civil Engineers Annuals, 1921-80. Papers written by the engineers and published by the society are cited where applicable, as are obituaries.

Arthur W. Bushell: Arthur Bushell was born in Burma in 1884 to missionary parents. He attended school in the United States, receiving a bachelor's degree in civil engineering from Brown University in 1907. Upon graduation, Bushell moved to Manila to work for the Philippine government, but eventually joined the Manila Railroad Company as an engineer of location and construction. In 1913, he returned to the United States to work for the Connecticut Highway Department as a division engineer at the Norwich regional office. Later Bushell moved to the department's New Haven office, where he held the same position.

In 1926 Bushell presented a paper, "The Widening of the Boston Post Road," to the Connecticut Society of Civil Engineers (CSCE) in which he stressed the importance of a highway for passenger cars paralleling the Post Road.¹⁰ In 1932 he transferred to the department's main office in Hartford where he assumed the position of engineer of contracts and construction with the Merritt Parkway consuming most of his attention. In 1940 Bushell was appointed director of engineering and construction. By the time he left the highway department in 1947, he was chief engineer and deputy highway commissioner, the department's second-highest post.

During the 1950s, Bushell acted as the consulting engineer and executive secretary for the Connecticut Roadbuilder's Association, an organization whose members included engineers, contractors, and manufacturers, as well as state and county highway officials. While at the association, Bushell worked to improve the working relationships between road-building contractors and the engineers of the highway department. He also held the position of executive secretary for the Connecticut Bituminous Concrete Producers Association, an organization he helped found. After retiring from the association, Bushell continued to act as a consultant until his death October 8, 1961.

⁹ Merritt Parkway construction drawings are in the Contract Card File. Collection of Map File and Engineering Records Department, Connecticut Department of Transportation, Wethersfield.

¹⁰ Arthur Bushell, "Widening the Boston Post Road," Connecticut Society of Civil Engineers Annual (16 February 1926): 40-45.

A member of the CSCE since 1917, Bushell served as its president in 1937. In 1950, he was awarded an honorary membership. He also had a life membership with the American Society of Civil Engineers and served a term as president of its Connecticut chapter.¹¹

Warren M. Creamer: Warren Creamer was born in Williamsport, Pennsylvania, in 1895. He received his B.S. from Trinity College in Hartford in 1917. In 1922 he joined the Connecticut Highway Department as an inspector and assistant engineer of construction. During the next decade he worked in several regional offices, including Westport. In 1932 Creamer transferred to the Merritt Parkway's New Canaan office and received a promotion to senior highway engineer with the title project engineer of surveys and property acquisition. As project engineer, Creamer worked on laying out the Merritt and the acquisition of land in Fairfield County. In 1938 Creamer was called before the county grand jury investigating parkway land acquisition.

In 1937, before the parkway was finished, Creamer was named state manager of highway planning survey. The survey was part of a national program to inventory rural roads and highways with the ultimate aim of planning a defensible national highway system. In 1939 Creamer published a paper, "The State-Wide Highway Planning Survey," detailing his work on the Connecticut project, and the following year the CSCE presented him with an award for his work on the survey.¹²

In the late 1940s, Creamer became director of engineering and construction and around 1950 he assumed the title of chief engineer (also called principle technical highway engineer). During the 1930s-40s, Creamer wrote several articles and reports about the Merritt, including one for the 1936 CSCE annual and the Report of a Preliminary Study for the Construction of a Relief Highway to Alleviate Congestion on U.S. Route 1 Between Greenwich and Bridgeport for the highway department in 1943.¹³

In the early 1950s, Creamer served as vice president and president of CSCE, which he had joined in 1924; he became a life member in 1954 and an honorary member in 1963. Creamer retired from the highway department in 1966, at which time he held the post director of staff services. Creamer was licensed as a professional engineer his entire career. He died July 7, 1979.¹⁴

John Smith: When John Smith joined the CSCE in 1919, he was already employed by the Connecticut Highway Department. In 1923 the CSCE annual report listed Smith as a division engineer in Norwich. When the design of the Merritt Parkway began in 1931, Smith was appointed engineer of surveys and plans (also called engineer of location and design). Smith was licensed as a professional engineer and land surveyor.

¹¹ See "Arthur W. Bushell," obituary, Connecticut Society of Civil Engineers Annual 78 (1962): 6-7.

¹² Warren M. Creamer, "Statewide Highway Planning Survey," Connecticut Society of Civil Engineers Annual 8 (1939): 20-26.

¹³ Warren M. Creamer, "Merritt Parkway," Connecticut Society of Civil Engineers Annual 10 (1936), 99-112; Creamer, Report of a Preliminary Study for the Construction of a Relief Highway to Alleviate Congestion on U.S. Route 1 Between Greenwich and Bridgeport (Hartford: State Highway Department, January 1943).

¹⁴ See "Warren M. Creamer," obituary, Connecticut Society of Civil Engineers Annual 96 (1980): 77.

Daniel H. B. Starr: Daniel Starr was a highway department division engineer in Middletown and an engineer of highway design in Portland before he transferred to the Hartford office to begin work on the Merritt Parkway. Starr signed the parkway construction drawings as engineer of highway design. He worked for the highway department at least until 1950. Starr became a member of the CSCE in 1925 and acted as a director of its District II in 1937.

Leslie G. Sumner: After graduating from Yale University in 1915, Leslie Sumner began working in the highway department's Hartford office as a draftsman and designer. In 1924 he was promoted to chief draftsman and when the department reorganized in 1932, he became the engineer of bridges and structures. All parkway structures were under Sumner's jurisdiction and, according to highway department records, he was involved in the design of many parkway bridges. Sumner is credited with the decision to design the bridges to accommodate trucks despite the fact the parkway itself was limited to passenger cars.

Sumner was involved in the design of other Connecticut bridges, including the Charles J. Arrigoni Bridge over the Connecticut River, the largest and most expensive bridge in the state upon its completion in 1938. That year the American Institute of Steel Construction awarded the Arrigoni Bridge first prize in the large-bridge category for its innovative design and erection methods. In the mid 1940s, Sumner was director of engineering and construction, but he left the highway department sometime before 1950 to become chief engineer with Savin Construction Company, where he worked until retiring in 1966.

Sumner actively participated in the CSCE, presenting papers on the design of numerous bridges, including the Arrigoni and those of the Merritt. He joined the society in 1920 and was a life member by 1958. Sumner served as CSCE president in 1943, after two years as vice president. He was an honorary member of the American Society of Civil Engineers and was licensed as a professional engineer and land surveyor. He died December 15, 1969.¹⁵

John F. Willis: Born in Brooklyn, New York, in 1890, John Willis moved to Connecticut prior to 1921, when he was listed as a civil engineer in the CSCE annual report. By 1925 Willis had been hired by the highway department as a structural engineer. He was the engineer of bridge design for the Merritt Parkway, approving structural drawings for each bridge on the parkway. In 1949 Willis was promoted to engineer of bridges and structures, and that same year he was elected president of CSCE. Willis joined CSCE in 1922 and became a life member in 1960, the year he retired from the highway department. For a few years after his retirement, Willis worked in Connecticut as a consulting engineer. He eventually moved to Largo, Florida. Willis was licensed as a professional engineer and land surveyor. He died February 16, 1980, at age 90.

Highway Architect George L. Dunkelberger

George Dunkelberger was born in Camden, New Jersey, on July 9, 1891. In 1910 he enrolled at the Drexel Institute of Art, Science, and Industry in Philadelphia, and after two years of night school received a certificate in house construction.¹⁶ In the classes Dunkelberger took at Drexel, he received

¹⁵ See "Leslie G. Sumner," obituary, Connecticut Society of Civil Engineers Annual 86 (1970): 4-5.

¹⁶ "Alumni List, Drexel Institute of Art, Science and Industry," 1948, p. 54. Collection Drexel University Archives, Philadelphia, PA.

training in all phases of drafting, learning to render plans, elevations, and details.¹⁷ In 1912 Dunkelberger continued his education at the Industrial Art School of Philadelphia.

In 1913 Dunkelberger moved to Hartford where he worked for architect Fred C. Waltz as an estimator and drafter. Prior to entering the U.S. Navy in 1918, Dunkelberger worked for several additional Hartford architectural firms. During his two years in the navy, Dunkelberger received additional drafting instruction. He returned to Hartford in 1920 and the following year formed an architectural partnership with Joseph Gelman. Dunkelberger married in 1923 and moved to Wethersfield.¹⁸

In 1933, the firm Dunkelberger and Gelman disbanded, likely due to the Depression. That same year, Dunkelberger was hired by the highway department as a junior draftsman and was soon transferred to the bridge design section of the division of bridges and structures in the bureau of engineering and construction.¹⁹ While there, Dunkelberger designed the exteriors for all bridges on the Merritt and Wilbur Cross parkways. In addition, Dunkelberger designed all other structures on the Merritt Parkway, including the toll plazas and service stations. Dunkelberger's other major projects for the highway department included the ornamentation for the Charter Oak Bridge in Hartford, the Gold Star Memorial Bridge, and the West Rock Tunnel in New Haven. In 1941 Dunkelberger was promoted to highway architect, in addition to which he designed several private residences in the Hartford area.

Dunkelberger left the highway department in 1950, possibly a victim of the post-war shift to more utilitarian and less decorative structures along the nation's highways. Shortly after his departure the department eliminated the position of highway architect. Dunkelberger transferred to the Connecticut State Department of Education where he worked as a senior architect in the Bureau of School and Community Services. Dunkelberger retired in the late 1950s and moved with his wife, Anna, to East Madeira Beach, Florida. He died January 26, 1960.²⁰

The Bureau of Roadside Development

The Bureau of Roadside Development was composed of three regional districts, the roadside engineering section, and the roadside supply section. The director of the Bureau of Roadside Development oversaw the work of supervisors, landscape architects, and foremen.²¹ Landscape architects employed in the roadside engineering section (and sometimes called landscape engineers) were

¹⁷ "Class No. E2325," Drexel Institute of Art, Science and Industry, Evening School Course Catalog 1910/11 (Philadelphia: Drexel Institute of Art, Science and Industry, 1910), 218.

¹⁸ George L. Dunkelberger, application for membership to the Connecticut chapter of the American Institute of Architects, 1953. Hartford city directories show the Dunkelberger and Gelman office located at 712 Main St. According to Hartford city directories, Dunkelberger's house was at 274 Wethersfield St. before 1928 when the Dunkelbergers moved to 44 Wolcott Hill Road.

¹⁹ According to retired ConnDOT historian George L. Larned, Dunkelberger's artistic ability aided his rapid transfer to the design section. See George L. Larned, Letter to David F. Ransom, 27 December 1990, Central File, Connecticut Department of Transportation, Wethersfield.

²⁰ See "George L. Dunkelberger," obituary, Connecticut Society of Civil Engineers Annual 30 (1960): 158.

²¹ The highway department's bureau was much smaller than the ideal state landscape architecture office advocated nationally in magazines such as Landscape Architecture. See "A Permanent Policy of Roadside Improvement," Landscape Architecture 26 (January 1936): 78-88.

responsible for all bureau design work.²² Roadside development groups, made up of skilled and unskilled laborers and managed by regional foremen, carried out all manual roadside work. Roadsides eligible for development were all areas within the highway rights-of-way "designed for vegetative treatment," including median strips and rock cuts.²³ Picnic areas and historic sites within rights-of-way were also under the bureau's jurisdiction.

The Bureau of Roadside Development executed improvement plans for roadsides and maintained already improved roadsides to "conserve and maintain the natural scenic features on state highways."²⁴ The bureau's basic activities included the planting of trees, shrubs, and vines to provide roadside beauty, the maintenance of older trees, and the creation of landscape and water vistas by removing weeds, cutting grass, and selectively trimming and pruning shrubs and trees. In 1934 Better Roads magazine described this last process as "painting a picture with an ax."²⁵ The bureau also maintained roadsides for safety in conjunction with the division of highway location and design. The bureau inspected and maintained rock cuts, earth slopes and embankments of roadsides, trimmed trees to provide sight lines at curves, railroad crossings, highway intersections, and bridges.

Following departmental procedure, after the highway department announced the construction of a new highway or the reconstruction of an existing one, the Bureau of Roadside Development prepared plans for conserving, for later use, native trees and shrubs that otherwise would be destroyed during construction. The bureau's plans would also provide for the stripping and piling of top soil to be saved for future landscape work. After highway construction was completed, the bureau would begin to grade, seed, and plant the raw slopes of the cuts and fills. The goal was to eliminate slope erosion, reduce maintenance costs and, of course, beautify the highway.²⁶

According to the state highway research board, roadside development aimed to:

Conserve, enhance, and effectively display the natural beauty of the landscape through which the highway passes as well as provide maximum safety, utility, economy, and recreation facilities by means of proper location, design, construction and maintenance of the highway.²⁷

In Connecticut, the highway department divided the bureau's activities into four categories based on these national aims: utilitarian, aesthetic, safety and recreational, and historical. The ultimate goal of roadside

²² Manual of the Bureau of Roadside Development (Hartford: State Highway Department, 1945), 5.

²³ Manual of the Bureau of Roadside Development, 6.

²⁴ Manual of the Bureau of Roadside Development, 3.

²⁵ "Opening New Roadside Vistas," Better Roads (February 1934), 34. Photographs of roadside development projects in Connecticut accompany the article.

²⁶ Committee on Historical Publications, Forty Years of Highway Development in Connecticut, 1895-1935 (Hartford: Tercentenary Committee, 1935), 18. The extent to which this procedure was applied in planning the Merritt Parkway's landscape is examined in Chapter 8.

²⁷ Seven Years Along Connecticut Highways, 1927-1934 (Hartford: State Highway Department, 1934), 7.

development was to add to the safety and pleasure of state highways while decreasing the cost of maintenance, increasing the value of adjacent property, and promoting the beauty of the state.²⁸

Highway Department Landscape Architects

Critics of Commissioner Macdonald, an engineer by training, often charged that he was insensitive to landscape aesthetics. True or not, the fact remains that despite the high visibility of the work carried out by the Bureau of Roadside Development, relatively few landscape architects were employed by the highway department. Hence, only two biographies are included here. A. Earl Wood supervised the Merritt's landscaping and W. Thayer Chase was its chief designer.

A. Earl Wood: In the mid 1920s, Earl Wood studied forestry at Syracuse University. After college he joined the highway department as a landscape architect. In the course of his career, Wood rose through the ranks of the highway department, outlasting its reorganization into the Connecticut Department of Transportation in 1969. From landscape architect, Wood became engineer of roadside development in the 1930s. In that position he supervised the work of landscape architects in the parkway's three field offices. Wood wrote several articles about the Merritt Parkway for local magazines in which he discussed the intent of the parkway's landscaping.²⁹ He was later promoted to deputy commissioner of the highway department, a position he held until 1965 when he was named administrative director. In 1972 Wood was appointed commissioner of the Connecticut Department of Transportation; he retired seven years later. Wood was a member of the CSCE.³⁰

W. Thayer Chase: Weld Thayer Chase was born in Newport, Rhode Island, in 1908. As a youth he studied painting and drawing at Newport's Art Association. Chase's interest in landscape architecture may have been prompted by summers spent working in the gardens of numerous Newport estates, including that of John Jacob Astor. In 1931 Chase graduated from Rhode Island State College (now the University of Rhode Island) with a bachelor's degree in botany and that same year he began graduate school at the University of Massachusetts in Amherst. He received a master's degree in landscape architecture from there in 1933. Following graduation, Chase spent the summer touring the gardens and parks of Great Britain and Europe. By his own account, this firsthand experience of the picturesque gardens of the eighteenth and nineteenth century made a deep impression on the young landscape architect.³¹

After returning to the United States, Chase accepted a job with Connecticut's highway department as a landscape architect in the Bureau of Roadside Development. In 1935 he became the chief landscape architect for the Merritt, working out of the parkway's Trumbull field office. After the parkway's

²⁸ Seven Years Along Connecticut Highways, 15.

²⁹ See A. Earl Wood, "Development of the Merritt Parkway," Connecticut Woodlands 2 (September 1937): 3-4; and Wood, "The Merritt Parkway History and Plan," Connecticut State Journal (August 1935), 14, 32-35.

³⁰ Information taken from A. Earl Wood, interview by Catherine Lynn, 11 October 1990. Transcript, Connecticut Trust for Historic Preservation, New Haven, CT.

³¹ W. Thayer Chase, interview by Gabrielle M. Esperdy and Joanne McAllister-Hewlings, 3 June 1992. See also Chase, "Recollections," New Canaan Historical Society Annual 11 (1990-91), 1.

completion in 1940, Chase transferred to the State Park and Forest Commission where he planned shore beaches, inland parks, and forests. From 1966-72, Chase was assistant director of the commission.

That year, Transportation Commissioner Earl Wood, his former roadside development supervisor, asked Chase to organize the department's new environmental planning division. Chase retired in 1973 after thirty-eight years as a landscape architect for the state of Connecticut. In the nearly twenty years since, Chase has remained active as a landscape architect--as a volunteer consultant for organizations in his hometown of Wethersfield, including the Wethersfield Historical Society, Great Meadows Conservation Trust, and Cove Park. He is a former member of the Wethersfield Town Planning Commission and a former chairman of the community appearance committee.³² He is an emeritus member of the American Society of Landscape Architects and a past president of its Connecticut chapter.

³² Information taken from W. Thayer Chase's curriculum vitae.

Chapter 8:
Physical Context

Fairfield County Topography

In 1931, Griffenhagen and Associates' report on the highway department stated that Connecticut contained "exceedingly rugged terrain," consisting of eastern and western highlands and central lowlands. Because of this difficult topography, the report concluded, Connecticut's highways required expert planning in both location and design if they were to adequately and economically serve the state's growing traffic needs.¹ Perhaps nowhere else in the state was the topography more difficult for roadbuilding than in Fairfield County. As the highway department began laying out the Merritt Parkway --the county's most salient topographical run north to south. This topographical feature engendered numerous north/south routes, all but precluding a system of east-west routes, except in the flatter region near the coast.² The east-west routes that did exist were narrow and winding, carefully picking their way through low points of the rugged ridges and valleys. Even the Post Road, the major east/west corridor of the county, had kinks in its alignment from skirting numerous hills and bays and fording rivers at their most narrow point. If east-west routes had been avoided historically because they were difficult to lay out, in the early twentieth century they were avoided because of the prohibitive expense of the cuts and fills required for a straight route.³ When it came time to build the Merritt, which of necessity had to be an east-west route, the highway department realized that "stern measures" were required to deal with Fairfield County's difficult topography.⁴ The only solution was to run the Merritt straight into (and sometimes over) the hills and valleys that older roads had so assiduously avoided.

Existing Conditions

Fairfield County's hills and valleys contained diverse physical features: lakes, marshes, rolling open fields, and thick woods, some of which had remained "unspoiled since Colonial days."⁸ Whether or not these features remained pristine after the parkway's construction, prior to the Merritt much of Fairfield County still retained its original rural, and occasionally wild, appearance. Thus, when workers began clearing the parkway's right-of-way they encountered "heavy underbrush, virgin timber, and stubborn rock ledges" for much of the route (CT-63-75, 76, 77).⁹ If the timber was not quite virgin--by the mid 1940s an estimated 90 percent of Connecticut's forests were less than 60 years old--the county's

¹ Griffenhagen & Associates, Connecticut State Highway Department: A Report on the Organization and Procedure of the Department (Hartford: State Highway Department, 1931), 11.

² Leslie G. Sumner, "Bridges on the Merritt Parkway," Engineering News-Record 119 (23 September 1937): 501. See Atlas of Fairfield County, Connecticut (New York: Dolph and Stewart Map Publishers, 1931) for existing north-south and east-west routes prior to the Merritt.

³ Warren M. Creamer, "Merritt Parkway," Connecticut Society of Civil Engineers Annual 10 (1936), 102.

⁴ John Macdonald, "The Merritt Parkway," Connecticut Society of Civil Engineers Annual 11 (1938): 24.

⁸ Creamer, Connecticut Society of Civil Engineers Annual, 102.

⁹ "Work on Merritt Highway is Now Well Under Way," Greenwich Press, 2 August 1934, p. 1.

numerous stands of coniferous and deciduous trees were dense enough to give the appearance that they were. Coniferous species still in abundance in the 1930s included cedar, pine, and hemlock; deciduous varieties included chestnut, elm, oak, and maple. Despite continuous cutting and clearing by Fairfield County settlers since the seventeenth century, some of the forests were quite old. The Merritt's right-of-way only narrowly avoided what Betty Thomson describes as a "virtually primeval stand of beech-maple-hemlock forest" in Greenwich, just south of where the parkway crosses the Mianus River.¹⁰

It would be incorrect to assume the Merritt traversed such uncultivated countryside its full length. On the contrary, as Warren Creamer noted, the highway department had no choice but to "seek a location in a territory that had been extensively improved."¹¹ Period aerial photographs confirm this (CT-63-119). Development of the territory through which the Merritt passed was at least as diverse as the county's physical features. Though the route traversed many undeveloped acres of large country estates, it also passed through farm land. Fairfield County's fertile glacial-till soils made it ideal for farming: a 1935 land-use survey showed that working farms for dairy, poultry, fruits, and vegetables occupied a substantial portion of the county. Farm sizes ranged from large enterprises of more than fifty acres to smaller "part-time" farms, whose owners had other jobs. In addition, the county contained a number of "subsistence" farms--a few acres of land, six or less cows, and owners barely eking out a living.¹² Besides estates and farms, small villages, light industries, suburban homes, cemeteries, and country clubs also found themselves in the Merritt's path. By 1938, with nearly all lands for the parkway acquired, the state possessed 300 separate tracts representing some 2,600 acres. On this property were numerous structures that had to be moved or razed (CT-63-73, 74), including one church, fifty-one houses, thirteen barns, three stables, twelve garages, a greenhouse, a studio, a shop, a playhouse, and thirty-two other buildings.¹³

General Description of the Parkway

The Merritt Parkway is a four-lane divided highway that passes through a right-of-way with a minimum width of 300'. The parkway's 37.5-mile course consists of forty-six banked curves connecting long straight stretches, also called tangents. These tangents follow Fairfield County's rolling topography, rising and falling with an average grade of 3 percent to 4 percent. The Merritt's roadways, each carrying two lanes of traffic, are 26' wide and are separated by a sodded median strip. Originally the roadways were a light-colored concrete; today they are paved with dark bituminous asphalt. The median width varies from 21' at its widest to 16" at its narrowest, those portions of the parkway that pass over or under grade separations. The median and the roadsides are extensively landscaped with native trees, shrubs, and vines. When built, the landscaping included a number of natural and contrived vistas, most of which are now obscured by excessive vegetation. Mountable concrete curbs border the roadways enabling cars to pull onto the parkway's shoulders in case of emergency. Today, guardrails line portions of the roadway and most of the median.

¹⁰ Thomson, 128.

¹¹ Creamer, Connecticut Society of Civil Engineers Annual, 102.

¹² Information taken from maps prepared for Types of Farms and Types of Farming Areas in Connecticut, Special Bulletin (Storrs: Connecticut State College, 1935).

¹³ Macdonald, Connecticut Society of Civil Engineers Annual, 26.

A limited-access highway, the Merritt has twenty-one interchanges. The Hutchinson River Parkway's last exit is No. 30, at the state line, followed by exit No. 27 of the Merritt. Grade separations eliminate all traffic and railroad crossings. Today, there are seventy-two bridges, mostly concrete, on the Merritt Parkway--thirty-six underpasses and thirty-six overpasses. The overpasses include the bridges and culverts carrying the parkway over seven rivers and streams. Architecturally, no two bridges are alike, though most employ a similar structural system. Three pairs of service stations border the parkway in Greenwich, New Canaan and Fairfield, respectively. Highway markers for exits and mileage, replacements of the originals, are the only signage on the parkway. Frame toll plazas, originally located at the beginning of the parkway in Greenwich and just beyond the parkway's end in Milford, have been removed.

The Merritt Parkway passes through eight Fairfield County towns: Greenwich, Stamford, New Canaan, Norwalk, Westport, Fairfield, Trumbull, and Stratford. A direct continuation of Westchester County's Hutchinson River Parkway, the Merritt commences at King Street on the New York state line in Greenwich. It proceeds through the northern portion of Greenwich, passing Toll Gate Pond and the Byram River.¹⁴ It turns south to bisect Putnam and Rockwood lakes, and then heads east again to the Stamford town line. In Stamford the parkway crosses the Mianus River and curves south passing Holts Ice Pond. From there it continues on a straight path, crossing the Rippowam River and turning south just before the New Canaan town line. The parkway crosses the Noroton River and travels south almost to the Darien border, but it turns east at Talmadge Hill and, crossing Five Mile River, passes into Norwalk. After crossing Silvermine River, the parkway curves south between Main Avenue and West Rocks Road. After a long tangent it curves north at the Westport town line. In Westport the parkway turns south again until it crosses the Saugatuck River. It then continues east, curving north after entering Fairfield at the Sturges Highway. The parkway passes through Fairfield in a series of alternating north and south curves, entering Trumbull at its southwest corner. It sweeps south through Trumbull, crosses the Pequonnock River, and after two curves enters Stratford. From the Stratford town line, the parkway travels in a straight line to the western embankment of the Housatonic River. At this point, the Merritt Parkway ends and the Wilbur Cross Parkway begins.

¹⁴ While the Merritt Parkway's general direction is usually described as west to east, it actually travels southwest to northeast. This description retains the west-to-east direction for the sake of clarity.

Chapter 9:
Planning and Construction

Surveying

Surveying for the Merritt began in 1926 after department engineers collected and analyzed all existing maps of Fairfield County. With these maps as a guide, they made reconnaissance forays into territory approximately ten miles north of the Post Road, spending "the long cold winters and hot summers" slowly "etching [the line of the parkway] across Fairfield County."¹ When "transit, machete, and axe" proved inadequate for surveying the county's rough features, the highway department undertook an aerial survey of the land between the Housatonic River and the New York state line.² In a Better Roads article about Connecticut's aerial activities, Commissioner Macdonald explained that the surveys were invaluable because they allowed road planners to see hundreds of acres at a glance and made preliminary route planning as simple as "stretching a string between two points on a photograph."³ According to Macdonald, highway engineers and landscape architects used the aerial views to incorporate "factors of safety and beautification" into the Merritt's layout and design. In addition, aerial photographs provided much of the information needed for right-of-way property acquisitions.

After the Merritt's completion, the highway department again utilized aerial surveys, documenting the entire parkway from the Goodyear Blimp in 1941. For this project the highway department collaborated with the Yale University Bureau for Street Traffic Research to produce a slide show of blimp photographs called "Roads Leading North: An Aerial Story of the Merritt Parkway." According to the New York Times, the eighty-four hand-tinted slides and accompanying script provided an aerial "panorama" of the Merritt and a detailed examination of its "functional design." The slide show included aerial views of Westchester County and New York City parkways, as well as the Boston Post Road, for comparison with the Merritt.⁴

Planning the Right-of-Way

Though the right-of-way was planned with a minimum width of 300', for portions of the Merritt's route it was substantially wider, larger parcels of land having been purchased to preserve the scenic appearance of the roadside, or simply because of special agreements with property owners. In the 1930s, a 300' right-of-way was considered quite large. The Post Road's right-of-way was less than 66' for most of its length and commercial development began immediately at the boundary line. Divided highways contemporary with the Merritt were being built on rights-of-way as narrow as 70'. In 1939, Engineering News-Record reported that the average right-of-way had increased over the decade from 80' in 1932 to

¹ John A. Macdonald, "Merritt Parkway," Connecticut Society of Civil Engineers Annual 2 (1938): 25.

² Warren M. Creamer, "Merritt Parkway: Queen of Turnpikes," Connecticut Highways 4 (July 1962): 3.

³ John A. Macdonald, "Aerial Surveys Aid in Highway Development" Better Roads, February 1936, p. 38. By 1934 the department had completed aerial surveys of the entire state. See 1934 Aerial Survey of Connecticut, Highway Department Record Group, Connecticut State Library and Archives, Hartford.

⁴ "Film Roads by Airship," New York Times, 1 June 1941, p. 6 (10). According to this article, twenty copies of the show were produced. The historians were unable to locate them.

120' in 1936, but it projected that only in the 1940s would rights-of-way greater than 200' become common.⁵ Even contemporary parkways, such as those built in Westchester County, did not have rights-of-way as wide as that of the Merritt. Though the chief engineer of the Westchester County Park Commission wrote in 1934 that a minimum width of 300' was desirable for a parkway to "be effective," the Bronx River, Hutchinson River, and Sawmill River parkways all had minimum rights-of-way of only 250'.⁶

One purpose of the Merritt's wide right-of-way was to provide a buffer strip between the parkway and bordering residential and commercial developments, both those existing and those anticipated. This buffer was not only a visual barrier, it was a safety measure as well, preventing cars from careening off the road and into developed and populated areas.⁷ The right-of-way was also a provision for the Merritt's future expansion, should the parkway's four lanes become inadequate. A base line was established to bisect the right-of-way into two strips, each not less than 150' wide. The parkway was built to the north of this baseline, leaving the entire southern strip free for the future construction of two additional roadways separated from the northern portion and each other by landscaped medians.⁸

Construction Contracts

Although the highway department was responsible for the design of the Merritt, the parkway's actual construction was handled by external construction firms awarded contracts by the division of contracts and construction of the bureau of engineering and construction. Highway department engineers supervised construction as it progressed, inspecting and approving all work. Construction contracts were let in four phases: first, to grade the right-of-way and build drainage culverts; second, to build grade separations and bridges; third, to pave and landscape; and fourth, to install curbs, fences, and signs. While in theory the order of contract awards dictated the chronology of construction, in reality many of the construction phases overlapped. For example, though Fairfield's Sport Hill Road Bridge (CT-55) was completely finished in 1937, the right-of-way had not even been cleared, much less graded or paved. The finished bridge sat in the middle of a field, next to a farmhouse and barn that had not yet been razed. Sometimes nature interfered with the construction process. When an early frost prevented the laying of concrete or an embankment threatened to slide into the roadway, landscaping preceded paving. On occasion, the construction process seemed truly random, as in Stamford near Long Ridge Road, where portions of the roadside were completely landscaped before the bridge was built or the road paved. A comprehensive chronology of the Merritt's construction, based on contracted work, is attached as Appendix A: Merritt Parkway Construction Contracts (page 118).

Clearing, Grading, Cuts and Fills

Though only a portion of the right-of-way was acquired by 1934, clearing for the roadway could still begin and ground breaking for the Merritt commenced at the site of the Riversville Road Bridge on May 23, 1934. That year, several gangs of sixty workers each began to clear a 100'-wide swath of land

⁵ "Divided Highway Design--I," Engineering News-Record 123 (21 December 1939): 819.

⁶ Jay Downer, "Principles of Westchester's Parkway System," Civil Engineering 4 (February 1934): 85 and John Nolen and Henry V. Hubbard, Parkways and Land Values, Harvard City Planning Studies, XI (Cambridge: Harvard University Press, 1937), 78.

⁷ James D. Adams, "Wider Rights-of-Way Will Reduce Roadside Slaughter," Better Roads, April 1934, 7.

⁸ A. Earl Wood, "The Merritt Parkway History and Plan," Connecticut State Journal 2 (August 1935): 33.

through the Fairfield County countryside filled with swamps, poison ivy, and hardwood forests. According to the Greenwich Press, the clearing process was to take about eight months.⁹ The first stage of clearing was to demolish or move existing structures. Next, all vegetation from underbrush to forest that lay in the surveyed roadway was removed. Because of the heavy forests encountered on the route, all tree chopping was supervised by trained foresters. State conservation officers were present throughout the process to prevent over clearing.¹⁰ Wherever possible, trees and shrubs were removed to private nurseries or state-owned land and saved for future use in the landscaping phase.¹¹ This not only saved money, but it gave the parkway's slopes and medians the appearance of native vegetation. Topsoil from the numerous meadows along the Merritt's route was also saved, after being stripped by bulldozer and dragline and stacked in storage piles. According to Earl Wood, 22,000 cubic yards of topsoil salvaged from one three-mile section of the parkway saved more than \$75,000 that would have otherwise been spent for new loam.¹²

With the route cleared, grading commenced. The first contracts were for grading the parkway at both ends, from the New York state line to North Street in Greenwich and from Main Street to the Huntington Turnpike in Trumbull. It is quite possible that Commissioner Macdonald deliberately started work at both ends of the parkway to assure its completion. By 1937, the parkway was graded as far east as West Rocks Road in Norwalk.

Because of the north-south orientation of land and the east-west orientation of the route, the parkway crossed over ridges and valleys, not between them. If the road was to avoid a roller-coaster effect, dipping from one ridge to the next, extensive and heavy cuts and fills were required. As Commissioner Macdonald put it, the only way through the county's innumerable ridges and valleys was with "dynamite, power-shovels, trucks and bulldozers."¹³ By cutting wedges out of the ridge tops and loading fill into the valley bottoms, the Merritt's engineers were able to achieve an approximate ruling grade of 7 percent and an average grade of less than 3 percent to 4 percent. The majority of cuts were diagonal to the ridge, because engineers felt that obliquely angled cuts appeared more natural than right-angled cuts. Similarly, the embankments created at cuts were not steep slopes, but rather gentle inclines that tended to blend better into the surroundings.¹⁴ Especially difficult road cuts were encountered at Ponus Ridge in New Canaan, High Ridge and Long Ridge in Stamford, and Black Rock Turnpike and Morehouse Highway in Fairfield. The high ridges in each of these areas required an extensive amount of grading to establish an acceptable gradient.

Due to the stubborn rock ledges encountered on the Merritt's route, frequent drilling and blasting was required to break through the ridges and transform them into slopes. Gangs of twenty-four men each

⁹ "Work on Merritt Highway is Now Well Under Way," Greenwich Press, 2 August 1934, p. 1.

¹⁰ Wood, History and Plan, 34.

¹¹ W. Thayer Chase, "Recollections," New Canaan Historical Society Annual 11 (1990-91): 3.

¹² Wood, History and Plan, 34.

¹³ Macdonald, Connecticut Society of Civil Engineers Annual, 25.

¹⁴ "Writer Lauds Work on Merritt Parkway," Greenwich Press, 16 June 1938, p. 15.

worked in continuous shifts, using wagon drills and jackhammers to break through the rock ledges.¹⁵ In 1934, the highway department estimated that nearly 220,000 yards of rock would have to be removed along the entire right-of-way.¹⁶ At one section of the parkway in Greenwich, the ledge was so high that if it was cut as a slope, rock and land slides would result. Engineers instead decided to cut the ledge into a shelf, requiring the removal of more than 2,000 yards of rock and more than 6,000 yards of fill.¹⁷ Whenever possible, the road was laid out to avoid such obstacles, though this occasionally resulted in other engineering difficulties. In Greenwich, for example, to avoid rock ledges the road had to traverse the area between Riversville and Round Hill roads on exactly the same course as the Byram River. As this situation was physically impossible, the river was diverted into a specially constructed canal adjacent to the roadway, so that the Merritt and the Byram could parallel one another. This canal later became known as Lockwood's Ravine.

Rock removed from tough ledges was carted away to low points or fill locations along the route where it was used to build up the valley floor or to flatten out embankments and reduce the forces of erosion.¹⁸ The blasted rock was also used to replace silt and muck dredged from low marshes, such as Hoyt's Swamp and Raymond's Pond.¹⁹ The fill provided a more secure foundation for the roadbed and prevented future settling and cracking.

Ideally, the amount of rock and loam removed from cuts would balance that needed for fills, precluding any additional fill expense. Despite the significant cuts along the Merritt's route, more fill was needed, however. Rather than purchasing it, engineers decided to dig a quarry near the New York state line already acquired for the right-of-way. After the fill was excavated, a portion of the Byram River was diverted into the quarry to create Toll Gate Pond, one of the parkway's first planned vistas.

Paving and Drainage

Highway officials recognized the importance of a road's sub-base for stability and drainage, and in the early stages of the Merritt construction, they attempted to provide for the maximum of both. At rock cuts, debris was removed to a depth of 2' below the desired subgrade. One of two subbases was then used--either 24" of gravel extending 6" beyond the curb, or 6" of gravel on 18" of stone extending 12" beyond the curb. At earth cuts, soil was removed to 1' below the desired subgrade and replaced with an equal amount of gravel fill extending 6" beyond the curb. At fills, 12" of gravel was also used for the subbase. In both cuts and fills, the median was backfilled with earth to within 10" of the finished surface, then topped with loam. An 8"-thick concrete pavement was laid in sections measuring 13' wide x 75'-9" long.

An initial concrete mix consisted of one part cement to two parts fine aggregate and 4.3 parts

¹⁵ "Prepare to Open More of Parkway," Greenwich Press, 23 November 1938, p. 1.

¹⁶ "Work on Merritt Highway is Now Well Under Way," 1.

¹⁷ "Lions Club First to Travel Merritt Route," Greenwich Press, 4 October 1934, p. 8.

¹⁸ Creamer, "Merritt Parkway," Connecticut Society of Civil Engineers Annual 10 (1936): 111.

¹⁹ "Merritt Will Require Draining Raymond's Pond," New Canaan Advertiser, 3 September 1936, p. 1.

coarse aggregate.²⁰ In the field, the engineer varied the proportions to achieve a workable mix. Essentially, adding aggregate decreased the amount of cement per unit of concrete, thus decreasing the cost of the mix. The amount of water added to the mix was not specified, but in 1936 the Portland Cement Association recommended using six gallons of water per sack of cement for pavement slabs.²¹ The Connecticut Highway Department vibrated the fresh concrete so that more aggregate could be added to the mix without losing workability. Roadway engineers believed that vibration allowed a 15 percent reduction of cement without affecting the strength of the concrete.²² The concrete pavement was reinforced with a steel wire mat. Reinforcing, a relatively new idea for roadways at the time, controlled slab cracking and was not used for structural strength.

The pavement section was bounded by and included joints that transferred loads and controlled cracking caused by volume changes in the concrete due to temperature variations. Each of the parkway's two roadways consisted of two lanes separated by a longitudinal construction joint. The joint consisted of a triangular key with deformed bar dowels placed mid-height in the slab. The key was formed by 14-gauge metal shields placed inside the formwork. Half of each bar was embedded in the concrete and the other half was bent parallel to the joint at the shield. When the shield was removed after curing, the bar was straightened and embedded in the other lane.

Expansion joints defined the length of each section. The designers wanted a joint that would allow expansion and contraction of the pavement while remaining watertight, that would transfer load across the joint without damaging the pavement, and that would be easily and economically installed and maintained. A short cold-rolled steel dowel (called a J-bar on construction documents) was housed in a cast-iron sleeve embedded on each side of the joint. Department engineers believed that the housing allowed movement of the dowel without causing bell holing, an enlargement of an unlined hole due to such movement. The dowel was kept perpendicular to the joint with a metal chair set in the joint. The joint was then lined with self-expanding cork filler, which maintained a watertight joint by expanding over time to 42 percent of its initial volume. Engineers Arthur Bushell and John Smith believed that the joint designed for the Merritt came very close to meeting all of the "theoretical requirements" of the most modern expansion joint.²³

Pavement contraction could not be accommodated by the expansion joints alone. Each pavement section contained dummy joints at the third points of the pavement length. These joints, less than 2" deep, were forced cracks that compensated for the stresses in the pavement occurring in colder temperatures. The reinforcing steel was intentionally broken below these surface grooves to further weaken the plane.

After placement, the concrete was levelled with a dual drum paver, also called a full-width transverse screed. The surface was further leveled with a full-width screed connected to a vibrator.

²⁰ "Merritt Parkway," Engineering News-Record 123 (20 July 1939): 72.

²¹ Lawrence Isley Hewes, American Highway Practice, vol. 2 (New York: John Wiley and Sons, 1942), 222.

²² Macdonald, Better Roads, 33.

²³ Arthur W. Bushell and John H. Smith, "How Shall Provision Be Made for Expansion and Contraction in Concrete Pavement," Connecticut Society of Civil Engineering Annual 7 (1937): 133.

Next, a surface pass with a longitudinal mechanical screed counteracted the transverse screed. Belting and brooming were used to was create the final surface--"a rough texture surface that reduce[d] to a minimum the possibility of skidding under normal operating conditions."²⁴ Finally, dummy joints were cut into the pavement surface by yet another machine. To facilitate the pavement-finishing process, the parkway's curbs were formed and poured after the slab. Dowels were provided in the slab for attaching the curb.

Drainage of the roadway comprised "four distinct lines of longitudinal water concentration."²⁵ The pavement was crowned to drain water to the gutters at the exterior and at the median. The median also drained to the interior gutters. These gutters flowed to catch basins carrying the water to manholes beneath the median. Reinforced-concrete storm sewers, parallel to the parkway, took the water to cross culverts. The retaining walls placed at the drain outlets, known as headwalls, were constructed of light-colored stone excavated on site. According to Earl Wood, raked-out joints and black-tinted mortar made these otherwise utilitarian structures "distinctive and attractive."²⁶

²⁴ Earle W. Osterhoudt, Merritt Parkway Speed Study (Hartford: State Highway Department, 1947), 3.

²⁵ Macdonald, Better Roads, 31.

²⁶ Wood, History and Plan, 34.

Chapter 10:
Divided-Highway Design

Discussing the Merritt's design features in 1938, Commissioner Macdonald wrote that the development of "dual-type highways"--of which the Merritt is an example--was a "comparatively recent event."¹ When planning began for the Merritt in the late 1920s, dual type highways, more commonly known as divided highways, were widely advocated by highway engineers, but their construction was not widespread. Divided highways developed as a response to the overwhelming traffic problems of the 1920s. In that decade, the most common solution to congestion and accidents was to widen the lanes of existing roads into four-lane undivided highways. Although these successfully carried large volumes of traffic, from a safety standpoint they were inadequate. With more room to maneuver, cars tended to travel faster and were more likely to overtake other cars by passing into opposing lanes of traffic, causing serious accidents. Despite this obvious hazard, the number of four-lane undivided highways under construction increased steadily until the mid 1930s.²

The most logical solution to the problem of undivided highways was to separate traffic lanes, preventing cars moving in opposite directions from conflicting with one another.³ Thus, the most basic feature of the highway became a dividing strip, also known as a median. As the divided highway developed, its features were standardized to insure the "safe, speedy and uninterrupted flow of traffic."⁴ Ideally, divided highways would have wide traffic lanes, grade separations, and curves and banks appropriate for fast-moving traffic. Divided-highway border lands would be strictly controlled to prevent access except at properly located and designed entrances. If the highway was newly constructed, it would be located away from populous centers, passing near towns but not through them. By 1937, newly constructed divided highways became the norm. The New York Times reported in "Divided Highways Gain Favor" that many states were building or planning "considerable mileage of this type." The article offered the Merritt as a prototype for the modern safe highway--its wide roadways giving "ample room for drivers who find it difficult to stay in their own lane."⁵

New divided routes such as the Merritt were planned for maximum utility, safety, beauty, and economy--the four essential qualities of what the national Highway Research Board called "the complete highway." The complete highway preserved land values through "high quality" architecture; it integrated with its surroundings through proper alignment and grading; it healed construction scars and protected groves, meadows, and springs through extensive landscaping; it eliminated "hot-dog stands and

¹ John A. Macdonald, Highway Commissioner's Report on the Highway Department and Merritt Parkway to the Governor (Hartford: State Highway Department, March 1938), 80.

² "Divided Highway Design--I," Engineering News-Record 123 (21 December 1939): 816.

³ "Divided-Lane Highways," Better Roads (October 1937), 35.

⁴ Frederick P. Clark, "Limited Motorways or Freeways," American City (January 1936), 54-55.

⁵ Earle Duffy, "Divided Lane Highways Gain Favor," New York Times, 3 October 1937, p. 6 (12).

billboards" through right-of-way control. The complete highway accomplished all this through the collaborative effort of "specialists trained in engineering, soil and plant science, architectural and landscape design."⁶ Whether or not highway department designers thought of the Merritt specifically in these terms, they nonetheless incorporated these qualities and features into the parkway.

Layout of the Roadway

As completed, Merritt Parkway consisted of two 26' roadways, each carrying two lanes of traffic, separated by a center island or median. The approximate width of each traffic lane was 13', significantly wider than the 11' lanes then favored on most newly constructed divided highways.⁷ The roadways were considered so wide by contemporary standards that it was even suggested they could accommodate three lanes of traffic if necessary.⁸

The roadways were laid out as a series of long tangents connected by forty-six curves intended to break the monotony of the tangents.⁹ Per mile of roadway, the curved length was 815', while the tangent length was 4,465', yielding a ratio of 16 percent curved roadway to 84 percent straight. Average curvature was 3 degrees, with a maximum curve of 7 degrees. Though curves were banked to allow for safe driving speeds between 30 mph and 45 mph, some proved quite dangerous in subsequent years. By 1950, a curve at North Street and Taconic Road in Greenwich had become so notorious that it was known locally as "deadman's curve." It was regraded that year, after Highway Commissioner Hill announced that the curve was the "only major engineering defect exposed by twelve years of operation on the parkway."¹⁰ More than 75,000 cubic yards of fill were needed to eliminate deadman's curve by raising the roadbed 30' and moving it 120' northwest.

The tangents, whose grades were dictated by the rolling Fairfield County terrain, had an average gradient of 3 percent to 4 percent, with a maximum grade of 8 percent. The length of transition for a normal tangent section to a tangent with a grade rise was generally between 200' and 300'. Contemporary critics of the Merritt found the parkway's curve-to-tangent layout one of its chief defects, as Gilmore Clarke, a noted parkway designer, complained:

Anyone who knows the topography of Fairfield County can see at once that two straight lines joined by a set curve in the middle do not afford a highway that fits the rolling countryside.¹¹

Clarke concluded that the layout was based on the patently false assumption that "a straight line is the shortest distance between two points, no matter what you encounter en route." The Merritt's curves and tangents were a marked contrast to the layout of the contemporary Pennsylvania Turnpike,

⁶ Committee on Roadside Development, The Complete Highway (Washington, D.C.: Highway Research Board, Division of Engineering and Industrial Research, National Research Council, 1944), iv.

⁷ "Divided Highway Design-1," 819.

⁸ "Merritt Parkway Extended," New York Times, 11 September 1938, p. 4 (12).

⁹ Earle W. Oaterhoudt, Merritt Parkway Speed Study (Hartford: State Highway Department, 1947), i.

¹⁰ "Deadman's Curve Will be No More," New York Times, 26 September 1950, p. 33 (1).

¹¹ "Calls Merritt Road Lay-out Desecration," Bridgeport Post, 4 May 1935, p. 1.

opened in 1940 as the nation's first "superhighway." The turnpike featured level straightaways, gentle curves, and maximum grades of 3 percent--a mere 3' rise for every 100' of forward travel, compared to an 8' rise for 100' feet of forward travel on the Merritt.¹² Minimum sight distances at both vertical and horizontal curves were 500', achieved mainly through a maximum use of long, sweeping curves and a minimum use of tangent grades.¹³ By 1947, this minimum distance was reduced to dangerous levels in at least nine curves on the parkway, due mainly to excessive growth of vegetation¹⁴

Medians

The Merritt's median runs the entire length of the parkway separating opposing lanes of traffic. Median width was widely debated during the 1930s and in actual practice widths varied from 12" to 40'. Most authorities agreed that the minimum width should be equal to the length of an average car--17' in the 1930s. For landscaped medians, widths of 12' to 30' were considered standard.¹⁵ The Merritt's median is 21' wide for most of its length, but as the roadway crosses underpasses and overpasses, it narrows to approximately 16", then gradually widens back to 21". In the first sections of the parkway completed, the median began to narrow at 500' from each bridge. In all later sections, the reduction began 1,000' from each bridge, lessening the visual convergence of traffic lanes. Nonetheless, cars were (and are) still forced to make a transverse movement of 7' over a transitional distance of 750' to 1,500'.¹⁶ Following contemporary practice, the median was originally broken to allow for left-hand turns and U-turns (CT-63-104).¹⁷ This soon proved dangerous because cars traveled at speeds too high for safe turning into opposing traffic, and the median was later changed into a continuous separating strip.

The median was originally turfed and planted with native trees and shrubs. Though the median landscaping beautified the road, it was intended to serve a safety function as well, by breaking the monotony of daytime travel and eliminating headlight glare at night. While this was standard practice on divided highways, the benefits were actually limited because until the median plantings matured, headlight glare was present.¹⁸ Today, some parts of the median have been paved and many trees and shrubs have been removed.

Curbs

Concrete curbs bordered the median and the outermost edge of the travel lanes for the parkway's entire length. Originally, they were 4" high with a 45-degree beveled face and were mountable--meaning cars could drive over them onto the median or shoulder without damaging a vehicle. Niches, or recessed slots, were cut into the curb face for the insertion of small metal frames containing a glass reflector button--"curb eyes (CT-63, Sheet 21 of 21)." The niches were spaced at intervals varying from 5' to 22'

¹² See Dan Cupper, "Road to the Future," American Heritage (May-June 1990), 103.

¹³ Warren Creamer, "Merritt Parkway," Connecticut Society of Civil Engineers Annual 10 (1936): 107.

¹⁴ Osterhoudt, 5.

¹⁵ "Divided Highway Design--II: Design of Median Strips," Engineering News-Record 124 (29 February 1940): 321.

¹⁶ Osterhoudt, 4.

¹⁷ "Median Strips at Highway Intersections," Engineering News-Record 123 (26 October 1939): 534.

¹⁸ See "Divided-Lane Highways," 37.

the length of the parkway, though they were spaced much closer together at entrance and exit ramps and curves. The niches were bevelled in the direction of traffic so that when struck by headlight beams at night, they disclosed the outline of the curb, making it visible to the driver. According to Engineering News-Record, mountability and visibility were the most important requirements for modern curbs. With their beveled face and reflector buttons, the Merritt's curbs met both requirements and were praised as outstanding examples of modern curb design.¹⁹ By 1947, most of the cats'-eyes had lost their reflectivity or were missing.²⁰ Today, most of the original curbs have been removed or covered with asphalt. The majority of the curbs are still mountable, though guardrails prevent shoulder access along some stretches of the parkway.

Interchanges

Interchanges provided for the smooth flow of traffic between the Merritt and twenty-one roads leading to communities north and south of the parkway. Each interchange included short acceleration and deceleration lanes to allow access and egress from the parkway at high speed. However, a 1947 speed study showed that these lanes were of insufficient length for their intended use.²¹ Cars were unable to reach cruising speed before entering the parkway and were forced to come to a complete stop if traffic was heavy.²² To exit, motorists were forced to slow down to below cruising speed, increasing the hazard of rear-end collisions. Most interchanges consisted of one grade separation and three or four traffic loops (CT-63-89, 98). While none of the parkway's interchanges were the perfect cloverleaves advocated by highway experts such as E. C. Lawton, whose authority Commissioner Macdonald cited on several occasions, most interchange loops did have the recommended radius of approximately 139' (CT-63, Sheet 19 of 21).²³

Many interchanges have been altered over the years due to changing traffic patterns, some alterations taking place only months after the parkway was opened. In 1940, for example, on and off ramps were built at the Round Hill Road (CT-68) and Park Avenue (CT-115) bridges in Greenwich. Local residents had earlier opposed these interchanges, content to use the existing grade crossing at Old Mill Road. When this crossing was eliminated and they were forced to drive to North Street to enter the parkway, public sentiment changed and the community welcomed the new interchanges.²⁴ In 1956, as part of a large project to upgrade the Merritt in Greenwich, ramps were built at the Lake Avenue interchange (CT-69), widened and lengthened at Round Hill Road, and North Street (CT-70) interchange ramps were widened and extended.²⁵ In 1958, because of increased traffic from the nearby Sikorsky

¹⁹ "Divided Highway Design--III: New Principles of Curb Design," Engineering News-Record 124 (14 March 1940): 381-82.

²⁰ Osterhoudt, 3.

²¹ Osterhoudt, 7.

²² This design flaw gave rise to the romantic notion that cars were supposed to come to a complete stop before entering the parkway in order to view the beauty of the landscape.

²³ E. C. Lawton, "Intercity Arterial Roads," Engineering News-Record 117 (12 November 1936): 687.

²⁴ "Round Hill May Seek Entrance to the Parkway," Greenwich Press, 15 December 1938, p. 1.

²⁵ "Merritt Parkway Improvement Progresses in Greenwich Area," New York Times, 17 December 1955, p. 25 (1); John C. Devlin, "Merritt Project Now in High Gear," New York Times, 16 April 1956, p. 29 (1).

Aircraft factory, the ramps of the Main Street/Route 110 interchange (CT-130) in Stratford were modified and three additional ramps were built.²⁶ In the past twenty years numerous other interchanges have been altered due to overall increases in traffic, including High Ridge Road/Route 137 (CT-79) and Long Ridge Road/Route 104 (CT-76) in Stamford, Main Avenue/Route 7 (CT-93) in Norwalk, Black Rock Turnpike/Route 58 (CT-111) in Fairfield, and South Avenue/Route 124 (CT-84) in New Canaan.

Pavements

The concrete-paved roadways of the Merritt Parkway reflected the most advanced pavement construction of the 1930s. Numerous articles appearing in the engineering press singled out the Merritt as a "remarkable" example of then-current concrete technology.²⁷ According to Commissioner Macdonald, in selecting concrete pavements, the highway department paid special attention to factors of durability, appearance, riding quality, and maintenance costs.²⁸ In each instance, concrete was judged preferable to asphalt.

The Merritt's concrete roadways held up well for more than a decade, requiring only minimal repaving in the late 1940s. The highway department undertook the first major repaving of the parkway in 1956, with a project to resurface the roadway from the New York state line to North Street, in Greenwich.²⁹ Salt used to melt ice and snow on the parkway had caused considerable scaling of the concrete in this section, necessitating the improvements.³⁰ Bituminous concrete--a mixture of cement, asphalt, and small stones--was used to resurface the parkway until the mid 1960s when the highway department switched to asphalt.

In addition to repaving in the 1950s, traffic lines were added to the road surface to separate lanes from each other. In 1954 luminous white lines were painted on the outer edges of the roadway to define the lip of the pavement and outline the road's path. A Westport resident, Dr. John Door, campaigned vigorously for the lines because his wife had trouble driving on the parkway at night.³¹ He convinced the highway department to paint a small test patch in Greenwich and when this proved successful, the entire parkway was lined. By 1955 the lines were credited with reducing traffic accidents on the parkway, so much so that Westchester County parkways soon followed the Merritt's lead and later claimed that the lines had reduced accidents on the Hutchinson River Parkway by 50 percent.³²

²⁶ This project required over a year to complete because of a large granite ledge encountered in building one of the feeder lanes. See "Interchange Revised on Merritt Parkway," New York Times, 29 May 1957, p. 29 (1).

²⁷ "Merritt Parkway," Engineering News-Record 123 (20 July 1939): 70.

²⁸ John A. Macdonald, "The Merritt Parkway," Connecticut Society of Civil Engineers Annual 2 (1938): 33.

²⁹ Richard H. Parke, "Merritt Parkway Improvement Progresses in Greenwich Area," New York Times, 17 December 1955, p. 25 (1).

³⁰ Devlin, 29 (1).

³¹ "Line on Road's Edge is Cutting Accidents," New York Times, 5 January 1955, p. 1 (1).

³² "White Lines Painted on Outer Edges of Parkway," New Canaan Advertiser, 23 November 1954, p. 22.

Turnouts

Turnouts constructed in the mid 1950s were the last significant alteration to the original roadway configuration. After an alarming number of accidents on the parkway were attributed to drivers falling asleep at the wheel, the highway department conducted a study of safety turnouts and determined that the Merritt and the Wilbur Cross Parkways needed twenty-eight rest areas approximately 2,200' long to prevent further accidents. Only a few rest turnouts were actually constructed, including one built in Greenwich in 1956 for \$34,000.³³ Most of the existing turnouts have since been closed.

³³ Parke, 25.

Chapter 11:
Bridges

There are two types of bridges on the Merritt Parkway: underpasses that carry the parkway under intersecting roads and railroad tracks, and overpasses that carry the parkway *over* intersecting roads and rivers. The majority of bridges are concrete, with rigid-frame structures and decorative surface treatment. Originally seventy-two in number (including culverts) with no two alike, these bridges were-- and still are--one of the most visible features of the roadway. Neither structurally or stylistically advanced, the significance of the Merritt's bridges lies in the degree to which they embody the theories and practice of bridge design current in the 1930s. More often than not, however, the Merritt's bridge designers chose to follow the spirit, and not the letter, of these currents, resulting in a diverse collection of crossings that were quite distinct within the context of contemporary parkway design. As architect George Dunkelberger described them:

We believe that these bridges are pleasing to the eye, represent a radical departure from highway bridges, and are decidedly individual in character.¹

Grade-separated bridges were an essential parkway feature. Throughout the 1930s, parkway advocates had consistently lobbied for grade separations as a crucial element of the roadway. Because grade separations eliminated dangerous cross traffic from the parkway, fast-moving cars did not have to stop to allow local traffic to cross the road. Thus, grade separations enhanced both parkway safety and speed. Though grade separations were deemed an innovation when the first Westchester County parkways were built in the 1920s, by the time the Merritt was under construction they were considered a design standard.²

Nonetheless, as late as the 1950s, the Merritt had several at-grade intersections, including Den Road in Stamford and Butternut Hollow Road in Greenwich.³ The existence of these grade intersections was the result of a political power struggle between the state and the local communities through which the Merritt passed. Though the state controlled the parkway's route, the bordering towns controlled intersecting roads. Usually the highway department dealt with intersections by building overpasses or underpasses. However, if a given intersection did not warrant a bridge (usually due to lack of traffic), the town was expected to willingly "abandon for public travel" that portion of the road that fell within the parkway's right-of-way. Since towns often refused to give up their roads, the highway department had to negotiate with local leaders to arrange road closings or bridge construction. In 1938, for example, the department offered to build a bridge at Lake Avenue in Greenwich if the town would agree to close

¹ George L. Dunkelberger, "Design of Merritt Parkway Bridges," New England Construction (February 1937), 10.

² John Nolen and Henry V. Hubbard. Parkways and Land Values, Harvard City Planning Studies, XI (Cambridge: Harvard University Press, 1937), 80.

³ "Hill Requests Elimination of Parkway Grade Crossing Near Butternut Hollow Road," Greenwich Time, 3 September 1954, p. 1.

Old Mill and Cherry Valley roads.⁴

Once such negotiations were completed, the highway department faced the daunting task of producing designs and specifications for more than seventy bridges and culverts within a short time. The magnitude of this job was sufficient enough for the highway department to create a special unit of its bridge-design section, dedicated exclusively to work on the Merritt. The highway department believed that assigning one unit to design all the Merritt's bridges would lead to "a certain continuity of thought and familiarity with details" that would insure the "proper handling of the special features involved in the planning of these structures."⁵

The highway department had good reason to be concerned about the design of the Merritt's bridges. As one of the most visible features of the state's largest public works project, the bridges would naturally play an important part in public perception of the parkway. Describing the bridge-planning process, Commissioner Macdonald wrote that the "prominence of these structures as a permanent feature of the landscape" dictated that careful attention be paid to the details of location, design, and construction.⁶

Designers generally agreed that parkway bridges required a more finished appearance than those found on regular trunk highways.⁷ Because parkways were considered "things of beauty," their bridges had to harmonize with the landscape, so that the countryside through which the parkway passed would appear "unmarred by the more unfortunate works of man."⁸ Despite budgetary constraints, the appearance of parkway bridges was important enough for the highway department to justify additional expenditures beyond the cost of mere utilitarian bridges.

The Merritt Parkway bridges were the result of the collaborative efforts of bridge-design engineers and architects. Highway bridges had long been the domain of the engineer alone, but in the 1930s collaboration between engineers and architects gained in popularity, due mainly to the growing public awareness of, and government support for, enhanced highway amenities. According to Gilmore Clarke, architect of numerous bridges in Westchester County, parkway bridges required "beauty of form as well as utility." The only way bridges could satisfy this "dual demand" was for architects to assist engineers. Clarke concluded that such collaborative efforts were "the only workable formula that assure[d] successful results."⁹

For the Merritt's bridges, the highway department cultivated this collaboration, demonstrating on parkways, at least, that engineering and architecture need not be mutually exclusive. Since Merritt

⁴ "Lake Avenue Bridge to Cross Parkway," Greenwich Press, 14 April 1938, p. 1.

⁵ Leslie G. Sumner, "Bridges on the Merritt Parkway," Engineering News Record 119 (23 September 1937): 506.

⁶ John A. Macdonald, Highway Commissioner's Report on the Highway Department and Merritt Parkway to the Governor (Hartford: State Highway Department, March 1938), 73.

⁷ Dunkelberger, "Design of Merritt Parkway Bridges," 7.

⁸ Sumner, 503.

⁹ Gilmore D. Clarke, "New Bridges Mean Opportunity for Architects," American Architect 143 (September 1933): 61.

architect George Dunkelberger had long believed that the general principles of architecture should be applied to the design of highway bridges, he was pleased to finally work along side engineers, describing it as a "welcome change" and a "respite" from standard practice.¹⁰ Despite this highly regarded teamwork, however, the design of the Merritt's bridges still fell into two distinct, and expected, phases--engineering and architecture.

Design--Engineering

Throughout the Merritt's construction process, highway department engineers frequently discussed the parkway's bridges in articles and published addresses. These writings, along with the construction drawings for each bridge, illustrate the specifications and criteria that the engineers used in the design process.¹¹ As Leslie Sumner makes clear in "Bridges on the Merritt Parkway," the first step in bridge design was to study the basic requirements for site, line, grade, structural dimensions, support, vehicle loading, constructability, and economics.¹² Most bridges needed a horizontal width of 40' and a minimum vertical clearance of 14'; as built, the vertical clearance at either curb was reduced to 11'. The width of the bridge deck varied according to the importance of the road being carried, but engineers established a minimum width of 30' that increased to 45' if the intersecting road was a state trunk highway.

Preliminary excavation studies at various bridge sites on the parkway indicated that foundation conditions were generally favorable. Since bedrock was found at convenient depths, engineers had a certain flexibility in designing foundations. Most often they chose reinforced-concrete spread footings to support the bridges. These footings were placed at varying depths below the surface, depending on the location of bedrock and the stability of the fill. Fill stability was dependent on surrounding conditions, namely whether the crossing was a river or a road. If the bedrock at a given location was too low, or if the fill was unstable, the engineers poured cyclopean concrete below the footings. In cyclopean concrete, large 100-pound stones are mixed with the concrete as it is poured. If the bedrock was even farther below the surface, steel piles were driven down to support the footings. For the most part, however, this was not necessary. As late as 1937, steel piles had only been needed on two occasions. Some of the deepest bridge foundations occur at Riversville Road (CT-65) and East Branch Road (CT-67) in Greenwich where they are 12' below the road surface.

All the Merritt's bridges were built with the strength capacity for an H-20 live load (a moving or external weight on the bridge of 20 tons). This load, based on the distribution of a truck's weight through its axles, was defined by the highway department in its 1935 bridge specifications and was common to all state highway structures in Connecticut. Underpasses obviously required this load capacity, as they carried local truck traffic across the parkway. But overpasses also required the H-20 load because, although the parkway was normally restricted to passenger cars, heavy maintenance trucks and snow-removal vehicles also traveled the route.

The bridge-drainage systems used on the Merritt were capable of handling moisture from several sources. To keep moisture in the fill from leaking through to the bridge frame, engineers designed a

¹⁰ George L. Dunkelberger, "Highway Architecture," Connecticut Society of Civil Engineers Annual, 12 (1942): 112.

¹¹ See Merritt Parkway field-record notebooks for construction drawings.

¹² Sumner, 504.

special waterproof membrane. Instead of reaching the frame, the moisture drips through the fill to a stone drain at the bridge footing. Drainage of rain and snow from the bridge roadway depended on the alignment of the road itself. Since most bridges were either on a grade or a vertical curve, water striking the bridge surface ran off in the direction of the grade or curve.¹³ Several pipes passed through the frame leg to remove the moisture that did not run off. Finally, a system was needed to remove moisture from the bridges' concrete surfaces. George Dunkelberger was particularly concerned about excess surface moisture since he believed it would alter bridge appearance, leaving unsightly water stains.¹⁴ To prevent these stains, Dunkelberger worked with the engineers to design drips for many bridges, working them into the ornamental scheme. Drips are special grooves that stop capillary water action on a horizontal surface; on the Merritt bridges, they are located several inches from the edge of the soffit.

Most Merritt Parkway bridges are simple, consisting of a central frame flanked by pylons and wingwalls. Though these basic bridge parts were designed as a unit, each part had to be able to move independently of the others. The engineers accomplished this freedom of movement through careful placement of expansion joints. The joints were located between the frame and wingwalls at the pylons, though the placement within the pylon varied from bridge to bridge. Because the pylons were vertical members, the joints also had to be vertical. To incorporate these vertical joints within the overall design of the bridge, architect Dunkelberger stepped in to aid engineers. Dunkelberger believed it was "better to have the expansion joint show on the [bridge] face as part of the design, than to construct something not only difficult to build but impractical, as well."¹⁵ Dunkelberger preferred to fit the expansion joints into his existing bridge designs, but if this was impossible he revamped the design around the location of the joints.¹⁶ Thus, the simple structural requirement of expansion joints resulted in the varied pylon designs found on Merritt bridges.

While the expansion joints played a part in ultimate design of the bridge surface, they also partially determined the sequence of bridge construction. According to the instructions for pouring concrete noted on the construction drawings, footings for the bridge frame were poured first. Next, the frame legs were poured with a construction joint between the leg and the pylon. For portions of the pylon on the frame side of the expansion joint, the concrete was poured as a monolith along with the frame span. The footings for the wingwalls and the rest of the pylons were poured next, with the wingwalls and the pylons poured after that. Construction photographs indicate that wingwalls were sometimes poured before the frame span. Construction joints occurred whenever two sections of concrete were poured at different times, which is why many bridges have an obvious joint between the frame leg and the span. If a joint does not occur there, then the frame was poured all at once.

The Merritt's steel bridges were likely constructed in a sequence similar to the concrete bridges. After the footings were poured, the frame was erected in three stages. Legs and knees were connected in the shop, then anchored to the footing. Next, the outer portions of the span were put in place, followed by the center portion. Finally, connections made on-site were either riveted or welded together,

¹³ Dunkelberger, "Design of Merritt Parkway Bridges," 8.

¹⁴ Dunkelberger, "Highway Architecture," 120.

¹⁵ Dunkelberger, "Design of Merritt Parkway Bridges," 8.

¹⁶ Dunkelberger, "Design of Merritt Parkway Bridges," 8.

depending upon the type of connector used in fabrication.

Structural Systems--Rigid Frame

Since the most important engineering aspect of a bridge is its structural system, highway department engineers availed themselves of the most current theories about structural systems to determine which was most appropriate for use on the Merritt Parkway. In 1926, Engineering News-Record predicted that the newly developed rigid frame would have "an important influence on future short-span practice."¹⁷ A decade later, the completion of the Merritt Parkway, with its multitude of rigid-frame structures, proved this prediction correct. Indeed, the Merritt's bridges are one of the largest collections of early rigid-frame structures in the United States. Though the highway department utilized several different structural systems for the parkway's bridges, including the arch and post-and-beam, the department's primary choice was the rigid frame because of its inherent economic and aesthetic advantages. According to department engineer Leslie Sumner, the rigid frame was the "axiomatic" choice because under most conditions it gave "a maximum of economy while offering possibilities of considerable beauty in the careful working out of the design."¹⁸

Prior to the development of the rigid frame, engineers with only a limited knowledge of bridge-foundation systems relied on time-tested beamed or trussed structural systems. By the late 1910s and early 1920s, however, improvements in predicting foundation behavior enabled designers to experiment with above ground "continuous" structural systems, such as the rigid frame. At the same time, improved construction techniques, of reinforced-concrete in particular, provided engineers with greater material flexibility that could be utilized in the new systems.¹⁹

The structure of a rigid frame is "continuous" because its beams are rigidly connected to its columns. When a load is applied to a beam, the resulting rotation at the beam end is resisted by the column. This resistance causes a rotation at the top of the column and transfers bending moment stress to the column itself. This redistribution of bending moment stress reduces the stress in the beam. The rotation of the column top also spreads the frame at its base; this thrust is countered by the foundation reaction and a compressive force in the beam. Hence, in a rigid frame both the beam and the column carry bending and compressive forces.

In bridge structures, a beam's bending strength relies primarily on its depth, so when the bending moment stress is reduced, the beam depth can also be reduced. In a typical rigid-frame structure, the frame forms an arch shape because the bending moment stress at the center of the beam is small, but the transferred stress at the knee is large, requiring a thicker section. The nature of the rigid frame is such that the bending moment is attracted to the larger sections of the frame. So, if the knee is large and the crown of the beam is small, the knee will carry a greater bending moment than the crown.

There are three primary types of rigid-frame bridges: a barrel or solid frame, a ribbed frame, and a cellular frame. Though the majority of the Merritt's reinforced-concrete bridges are the barrel type (See CT-72), in which the entire bridge width functions as a frame, several of the parkway's steel bridges

¹⁷"Continuous Structures to the Fore," Engineering News-Record 96 (26 April 1929): 677.

¹⁸ Sumner, 503.

¹⁹ "Continuous Structures to the Fore," 677.

employ the ribbed rigid frame. The most common rigid-frame shape found on the parkway, whether fabricated of steel or concrete, is well-illustrated by the frame of the Lake Avenue Bridge in Greenwich (See CT-69). The frame is shaped like a segmental arch; its knees are thickened with either sharp corners or fillets; its legs taper toward the base with a vertical inner face and a sloping outer face. On several bridges, including Taconic Road, the legs of the rigid frame are short and the bridge opening appears as a single round arch (See CT-71). Other bridges, such as that carrying James Farm Road, use this same short-legged frame to form double-arched spans (See CT-129).

In the parkway's steel-framed bridges, the bending moment strength (which depends on the depth of the beam or column) is resisted by compressive and tensile forces carried in the flanges, which are thicker than the rest of the cross-section to carry these forces. In reinforced-concrete frames, the reinforcing acts like the flanges, thus the reinforcing bars are shaped to approximate the steel frame. Ties hold the intrados and extrados steel together to resist the beam's tendency to deflect downward. Deflection of the intrados steel would result in spalling of the concrete.

For the parkway's bridge designers, the rigid frame offered several advantages over more traditional arch or post-and-beam structures. First, it is stronger: though it utilizes members the same size as a beam bridge, the rigid frame has greater load-carrying capacity. Second, it is more economical: unless additional load-carrying capacity is required, less material (steel or concrete) is required for the bridge. Third, it is faster to build: the smaller beam of the rigid frame reduces the approach height, saving fill and construction time. Fourth, unlike a true arch bridge that requires large abutments and extensive excavation for its thrust, the rigid frame requires minimal abutments and excavation. Finally, the rigid frame is truly flexible and can be adapted to any desired architectural form or expression.²⁰

Despite its many advantages, the rigid frame was not the appropriate structural system for all grade separations on the Merritt's route. The crossing of the Saugatuck River, for example, prohibited the use of a rigid frame due to the width and depth of the river valley. Instead, an open spandrel steel-arched system unique to the parkway was built to carry the roadway across the river (CT-99). The bridge's three arches span 130'. In 1937, Leslie Sumner referred to the Saugatuck crossing as the "most important and difficult bridge job" of the entire parkway.²¹ Rigid frames were not used for the other parkway water crossings, culverts that allow small rivers and brooks to pass under the Merritt. The three main culverts--at the Mianus River, Cricker Brook, and Pumpkin Brook--each consist of a double-span, reinforced-concrete beams, and slabs supported on abutment walls.

In several locations the rigid frame was simply not used, despite its appropriateness. In 1946, Merritt bridge engineer John F. Willis wrote that while the rigid frame was "economical and well adapted to grade separation, overuse may be monotonous."²² Thus, to break up structural monotony on the parkway, arch and post-and-beam systems were occasionally utilized. Concrete arches support the Park Avenue (CT-115) and the Guinea Road (CT-73) bridges in Trumbull and Stamford, respectively. The Riversville Road Bridge (CT-65) in Greenwich and White Plains Road Bridge (CT-122) in Trumbull are supported by traditional post-and-beam, with composite beams consisting of wide-flange steel sections

²⁰ Arthur G. Hayden, "Rigid Frames in Concrete Bridge Construction," Engineering News-Record 96 (29 April 1926): 687.

²¹ Sumner, 505.

²² John F. Willis, "Design of Wilbur Cross Parkway Bridges," Engineering News-Record 130 (16 May 1946): 793.

encased in concrete.

The use of rigid-frame structures on the Merritt illustrates once again the degree to which highway department designers relied on the precedents set by Westchester County parkways. As early as 1923, engineers working on the Bronx River Parkway began to investigate continuous structures because they wanted bridges that looked like arched spans, but wanted to eliminate the cost of the large abutments needed for true arches. By building a continuous frame instead of an arch, engineers claimed they could save \$5,000 per 42' span.²³ Dubbed the "rigid frame" a few years later, this structural system was gradually utilized for even longer spans.

The designing engineer for the Westchester County Park Commission, Arthur G. Hayden, was an authority on rigid-frame structures who wrote about and promoted them extensively throughout the 1920s-30s. In both technical journals and a book, The Rigid-Frame Bridge, Hayden's cogent and simplified explanations of bridge designs, structural tests, and complicated mathematical analyses provided contemporary bridge designers with a how-to manual for rigid-frame construction. By 1933, Hayden had engineered ninety rigid-frame bridges for Westchester County's parkways and by 1939 there were an estimated 400 in the United States.²⁴ Given the preponderance of rigid frames, a 1938 study of Westchester parkways concluded that the rigid frame must be the "most adaptable" structural system.²⁵

When Merritt Parkway engineers began preliminary designs for their own bridges, they naturally studied the rigid-frame structures used with such success in neighboring Westchester County. Ultimately, many of the bridges designed for the Merritt were structurally identical to those on Westchester County's parkways. Despite this similarity, however, the engineering of the Merritt's bridges was sharply criticized by the architect of Westchester County's parkways: in 1935, Gilmore Clarke ironically condemned the Merritt's bridges by charging that they "date back to the dark ages as far as modern engineering architecture goes."²⁶

Structural Materials--Concrete

Rigid-frame bridges finished in concrete were the standard on the Merritt Parkway. Three classes of concrete were used in their construction; the bridge component to be formed determined what class of material was used. Bridge drawings specify a Class "A" mixture for concrete rigid frames and encasements for steel frame legs, as well as for abutments, wingwalls, and footings for each bridge. The drawings specify Class "B" concrete for bedrock-supported piers, and Class "C" concrete for railings.

When the Merritt was under construction in the 1930s, concrete mixtures were classed by the ratio of parts cement, sand, and aggregate contained in the mix. Class "B" concrete used for the Merritt consisted of one part cement, three parts sand, and five parts aggregate (1:3:5). After the standardization of reinforced-concrete construction in the early 1920s, Class "A" concrete was one part cement, two parts

²³ Arthur G. Hayden, "Continuous Frame Design Used for Concrete Highway Bridges," Engineering News-Record 90 (11 January 1923): 73.

²⁴ Arthur G. Hayden and Maurice Barron, The Rigid-Frame Bridge, 3rd ed. (New York: John Wiley & Sons, 1950), 184.

²⁵ Nolen and Hubbard, 80.

²⁶ "Calls Merritt Road Lay-out Desecration," Bridgeport Post, 4 May 1935, p. 1.

sand, and four parts aggregate. This 1:2:4 mixture was the conventional ratio used by most engineers and contractors for concrete bridges.²⁷ In Connecticut, however, proportions for "A" and "C" mixtures varied from town to town according to building codes and contractors. While Greenwich, Stamford, New Canaan, and Norwalk all required the 1:2:4 mixture for bridges, Trumbull and Stratford required a mixture with proportions of 1:2½:4. In Fairfield and Westport, mixtures of both proportions were used. Class "C" concrete was generally a 1:2:3 mixture, but a 1:2½:3 mixture was specified for a few bridges. In several cases, the same mixture was specified for both Class "C" and Class "A" mixtures.

Though the concrete mixtures used for the Merritt's bridges were classed by the proportions of dry components, engineers and contractors were aware of the importance of the cement-to-water ratio in concrete strength. Contemporary concrete research showed that decreasing the amount of water per bag of cement would increase the strength of the concrete. In 1932, concrete expert Inge Lyse published a method for computing cement-to-water proportions required for specific concrete strengths and their desired consistencies.²⁸ Merritt engineers were probably aware of Lyse's method, but they nonetheless left the cement-to-water ratio to the discretion (and experience) of the contractor and site engineer. For the most part, since the cement was the most expensive component of the mix, the ratio determined on-site favored water over cement, using as much water as possible while still maintaining workability.²⁹

Bridge Design--Architecture

Perhaps the most distinctive architectural feature of the Merritt Parkway bridges is that the overwhelming majority of them are faced in concrete rather than stone. Concrete was the standard material for state highway bridges in Connecticut and elsewhere, but because most concrete bridges were designed solely for utilitarian purposes, they were generally perceived to be artless, ugly, and inappropriate for parkways. Parkway designer Gilmore Clarke, for example, argued that concrete, because it lacked the color and texture of native stone, did not lend itself for use on "naturalistic" parkways, though he conceded that some beautiful concrete bridges did exist.³⁰ In Westchester County, and on Long Island as well, stone bridges were *de rigueur* for parkways.³¹ Clarke, who had designed most of them, maintained that these stone spans--especially after weathering--gave a "feeling of age" that enhanced "nature's picture," while concrete bridges disrupted their natural surroundings.³²

Concerning the Merritt, the Fairfield County Planning Association argued that there "is often a great difference in appearance between a concrete highway bridge built for utility alone and a stone-faced

²⁷ "Simplified Concrete Proportioning," Engineering News-Record 96 (29 April 1926): 676.

²⁸ Inge Lyse, "Simplifying Design and Control of Concrete Mixes," Engineering News-Record 108 (18 February 1932): 249.

²⁹ "The Merritt Parkway," Engineering News-Record 123 (20 July 1939): 72.

³⁰ Gilmore D. Clarke, "Designing Small Stone Bridges," American Architect 121 (29 March 1922), 250.

³¹ By 1939, however, possibly following the Merritt's example, Robert Moses, strategist for the Westchester and Long Island parkways, acknowledged that concrete parkway bridges were acceptable as long as "aesthetic considerations" were foremost. See Robert Moses, "The Comprehensive Parkway System of the New York Metropolitan Region," Civil Engineering 9 (March 1939): 162.

³² Clarke, "Designing Small Stone Bridges," 250.

parkway structure."³³ For its part, the highway department was well aware that it was deviating from accepted parkway norms by putting concrete bridges on the Merritt. According to Dunkelberger, the department freely admitted that it was trying to "accomplish in concrete what other states [had] done in stone."³⁴ Of course, the highway department hardly chose concrete over stone to make a bold stylistic statement. On the contrary, it was chosen for the majority of structures as a cost-cutting measure.³⁵

Budgetary constraints aside, there was the aesthetic issue to deal with, as well. As Leslie Sumner pointed out, by eliminating stone facing the "fundamental supporting materials of steel and concrete" were left exposed. Because the Merritt was a parkway, the designers had to use these materials to produce bridges "of pleasing appearance."³⁶ Undaunted, architect Dunkelberger asserted that he could design bridges in concrete, a material he never found particularly beautiful, that would meet all functional, economic, and aesthetic requirements:

Concrete used in varied forms with the addition of the numerous mediums available for texture and color, together with materials we have available, such as precast concrete, architectural concrete slabs or natural products, a structure satisfactory in every way as to utility and appearance is possible at a minimum of expense.³⁷

Dunkelberger also believed that the location of a proposed bridge would help dictate whether concrete or stone was most appropriate material:

To my mind the use of a stone bridge in a location not suitable is just as bad as building a concrete structure in a very rocky and uneven countryside.³⁸

Bridge location was one of the organizing principles of Dunkelberger's designs for the Merritt Parkway bridges and his theories of highway architecture in general. He believed bridges should be incorporated into the existing landscape as much as possible, thus preserving the natural appearance of the site. No matter how architecturally or structurally beautiful, a bridge was worthless if its design was inappropriate for a given location. Nowhere was this more true than on parkways, where he believed a bridge's design should typify the character of the landscape.³⁹

Dunkelberger usually began to design bridges after careful inspection of each site because, as he put it, ideas for a particular design were often "suggested by a view of the location."⁴⁰ For example,

³³ Fairfield County Planning Association, Merritt Parkway Number (February 1934), 7.

³⁴ Dunkelberger, "Design of Merritt Parkway Bridges," 7.

³⁵ See Chapter 3 for a discussion of the financial impact of concrete and stone bridges on the Merritt's budget.

³⁶ Sumner, 540.

³⁷ Dunkelberger, "Highway Architecture," 117, 120.

³⁸ Dunkelberger, "Design of Merritt Parkway Bridges," 7.

³⁹ Dunkelberger, "Highway Architecture," 112.

⁴⁰ Dunkelberger, "Design of Merritt Parkway Bridges," 7.

if a bridge was to be situated in the low, flat countryside of Fairfield County's valleys--as on the Merwins Lane Bridge in Fairfield (CT-106)--the design should emphasize horizontal lines. In hilly areas where there were ridges--as on the North Avenue Bridge in Westport (CT-103)--a more vertical emphasis was appropriate. In intermediate terrain featuring valleys and ridges, a combination of vertical and horizontal would work best, as illustrated by the Lapham Avenue Bridge in New Canaan (CT-38).⁴¹

Dunkelberger had definite ideas about the individual elements of his bridges, giving considerable thought to the proper architectural treatment for pylons, railings, base courses, frame legs, etc., in the hopes of "evol[ing] something in keeping with the design as a whole."⁴² His typical parkway bridge consists of an arched span (part of the steel or concrete rigid frame), concrete wingwalls forming the approach on either side, pylons placed at the intersection of the wingwalls and frame, and railings running atop of the whole structure.

Dunkelberger was particularly concerned with the treatment of the wingwalls, which he believed, if carefully designed, could serve an important dual function in the bridge's design. First, they could relieve the monotonous flat surfaces so common to concrete bridges. Second, they could tie together the individual elements of the bridge into a visual whole.⁴³ On New Canaan's Ponus Ridge Road Bridge (CT-81), Dunkelberger breaks the visual monotony with wingwalls featuring blind segmental arches with molded voussoirs and quoins that mimic the spans's central arch. On the Wire Mill Road Bridge (CT-77) in Stamford, the wingwalls slope down and curve inward, adding a sense of depth to the facade. They also serve to tighten the composition, pulling the eye away from the ends of the bridge and in toward the pylons and the arch itself. Finally, the wingwalls meet the contour of the embankments, gently blending the bridge into the surrounding landscape.

Though his colleague, engineer Leslie Sumner, wrote that "small details, projections and ornaments [were] unnecessary and often detract[ed]" from a bridge's appearance, Dunkelberger consciously designed bridges "more ornate than those erected [by the highway department] in the past."⁴⁴ He acknowledged that most of the ornamental details he designed would not be apparent to motorists during their "flash observance" of the parkway, but believed that they were important nonetheless, because some tourists might pause to examine the structures more carefully.⁴⁵

Decorative surface detailing also provided another method of relieving the flat surfaces endemic to concrete bridges. Well-chosen details and ornaments enlivened a bridge facade, creating myriad contrasting effects of light and shadow. Because of the north-south orientation of many bridges, as the sun moved through the sky it produced "different reflections during the entire day on the different

⁴¹ Dunkelberger, "Highway Architecture," 114.

⁴² Dunkelberger, "Design of Merritt Parkway Bridges," 7.

⁴³ Dunkelberger, "Design of Merritt Parkway Bridges," 8.

⁴⁴ Sumner, 540; Dunkelberger, "Design of Merritt Parkway Bridges," 7.

⁴⁵ Dunkelberger, "Highway Architecture," 117.

portions of the bridge."⁴⁶

Dunkelberger's compositional ideas were actually not very different from those of stone-bridge advocate Gilmore Clarke. For example, Clarke also argued that long wingwalls were monotonous and that surface detailing would cast shadows to enliven bridge facades.⁴⁷ But here the two designers parted ways, Clarke relying on the inherent qualities of stone for texture and variety; Dunkelberger relying on the plastic qualities of concrete to create textures and variety of his own choosing.

The ornamental veneers and details that Dunkelberger created for the Merritt's bridges were inspired by a variety of architectural styles. As the architect himself put it, "some of these designs have classic influence, others a modern tendency."⁴⁸ Roadside development chief A. Earl Wood characterized the bridges as being either "conservative, modernistic, or colonial in their architectural lines."⁴⁹ Perhaps, though, highway Commissioner Macdonald described them most accurately:

In the design of the bridges an effort has been made to depart from the accepted types and styles of architecture so generally used on structures of this sort.⁵⁰

The accepted type was the stone-faced bridge; the accepted style was rustic, with occasional historicizing details thrown in for good measure. Dunkelberger did not depart completely from these standards, as the stone and cast-stone bridges at the Rippowam River (CT-78) and Guinea Road (CT-73) in Stamford, and at Main Avenue (CT-93) in Norwalk, make clear. Dunkelberger most likely chose undressed stone facades for these bridges to complement natural rock outcroppings. In fact, he designed the Guinea Road Bridge so that it appears to spring directly from such an outcropping. Adhering closely to Gilmore Clarke's dictum that stone bridges harmonize with nature "in color, in texture, in line, and in feeling," these bridges could easily have appeared on any Westchester County or Long Island parkway.⁵¹ Clarke likely would have also approved of bridges like those at Frenchtown Road (CT-119) in Trumbull and Newtown Turnpike (CT-98) in Westport, with their dressed cast-stone facades and simple details. The decorative buttresses of these bridges give the structures a medieval accent evocative of the European charm and craftsmanship that Clarke asserted bridge designers should study.⁵²

Dunkelberger borrowed from other historical styles, as well. A Gothic motif is used on the New Canaan Avenue Bridge (CT-87) in Norwalk, which features pointed-arch tracery on its pylons. The Park Avenue Bridge (CT-115) in Trumbull has a number of French Renaissance details, including fleur-de-lis. Dunkelberger also drew liberally upon the architectural vocabulary of classicism: from the dentil molding

⁴⁶ Dunkelberger, "Design of Merritt Parkway Bridges," 8.

⁴⁷ Clarke, "Designing Small Stone Bridges," 250.

⁴⁸ Dunkelberger, "Design of Merritt Parkway Bridges," 10.

⁴⁹ A. Earl Wood, "The Merritt Parkway History and Plan," Connecticut State Journal (August 1935), 34.

⁵⁰ Macdonald, Highway Commissioner's Biennial Report, 131.

⁵¹ Clarke, "Designing Small Stone Bridges," 252.

⁵² Clarke, "Designing Small Stone Bridges," 249.

of Greenwich's Stanwich Road Bridge (CT-72) and the keystone and stringcourses of Westport's Bayberry Lane Bridge (CT-104), to the voussoirs, quoins, and regular coursed masonry of the bridges at James Farm Road in Stratford (CT-129), and Round Hill Road (CT-68) and North Street (CT-70) in Greenwich.

Despite these historicizing details, the majority of the Merritt's bridges do, as Commissioner Macdonald noted, depart from accepted parkway styles. Finding much inspiration in the popular and commercial architecture of the 1930s, Dunkelberger designed numerous bridges with the stylistic motifs of Art Deco, *Art Moderne*, and stripped-down classicism. By using these styles on the Merritt, Dunkelberger successfully introduced the "modern tendency" in architecture into a new context--the parkway. If 1930s motorists expected to see deco and moderne storefronts, banks, or gas stations lining U.S. Route 1, they were probably surprised to find similarly styled bridges spanning the Merritt Parkway.

The concrete ornamentation of the Riverbank Road Bridge (CT-75) in Stamford consists of stepped and faceted forms typical of Art Deco. The pylons in particular appear almost as stylized skyscrapers, recalling both the setbacks of deco towers and the skyscraper sculptures of John Storrs. The deep projections and recessions of the ornaments also illustrate Dunkelberger's interest in surface shadowing. While Dunkelberger might have cited his work at Riverbank Road as one of his best modern designs, the bridge was attacked by no less a paragon of modern design than the Museum of Modern Art. In a 1949 exhibition and catalog, the museum decried the "elaborate foolishness" of this "pseudo-modern" bridge:

This rigid frame of reinforced concrete apes no historical precedent. Its vulgar ornament is peculiar to our times and easy of achievement in this docile material.⁵³

Though only the Riverbank Road bridge was singled out for this vituperation, dozens of other bridges on the Merritt feature Art Deco and *Art Moderne* ornamentation.

Dunkelberger's Art Deco bridges show lavish attention to detail, both in form and ornament. The bridges at Long Ridge Road (CT-76) in Stamford and South Avenue in New Canaan have pylons stepped up and back on matching bases. Decorative pylon panels are embellished with the stylized fountain motif popularized by the 1925 *Exposition Internationale des Arts Décoratifs* in Paris. The corners of the concrete rigid frame are emblazoned with faceted sunbursts. Other bridges with prominent deco-inspired ornaments include those at Fairfield's Black Rock Turnpike (CT-111) and New Canaan's White Oak Shade Road (CT-85). Several bridges feature the stylistic hallmarks of the stripped-down classicism popularized by many government buildings in the 1930s. Stamford's Newfield Avenue (CT-80) and Fairfield's Burr Street (CT-110) bridges are typical examples, with the vertical banding of their pylons recalling the fluting of classical columns. In addition, on the Burr Street Bridge in Fairfield, the banding across the rigid frame recalls the triglyphs of the frieze of a classical entablature.

The pylons of the Burr Street Bridge are further decorated with sculptural panels depicting surveyors and construction workers building the Merritt Parkway. The beefy, heroic figural style of these panels is in keeping with the overall architectural treatment of the bridge. The panels were likely inspired by similar sculptures that decorated numerous public buildings in the 1930s, such as those found on the buildings of the Federal Triangle in Washington, D.C.

⁵³ Elizabeth Mock, The Architecture of Bridges (New York: The Museum of Modern Art, 1949), 84-85.

As the Burr Street sculpture indicates, not all ornament on the Merritt's bridges is abstract. Other figural ornamentation on pylons includes the pilgrim and Indian relief sculptures on the Comstock Hill Road Bridge in Norwalk (CT-88). Flora and fauna, not necessarily native to Connecticut, appear on numerous bridges. There are flowers on Main Street Bridge (CT-118) in Trumbull, grapevines on Lake Avenue in Greenwich (CT-69), griffins on Grumman Avenue in Norwalk (CT-96), owls on Hillside Road in Fairfield (CT-109), and butterflies on Merwins Lane in Westport (CT-106), to name just a few.

Other bridges feature shields and medallions decorated with symbols relating to Connecticut, the highway department, and transportation. The Park Avenue Bridge (CT-115) displays the seal of the town of Trumbull. Nearly one-third of the bridges, including that of Chestnut Hill Road (CT-97) in Norwalk, are embellished with Connecticut's state coat of arms. Though it was standard policy to install the coat of arms on all state highway bridges, Dunkelberger decided this would be too monotonous.⁵⁴ In most cases where he did use the coat of arms, he placed it on the inside of the arch to be less conspicuous. Known as celebration bridges, both the James Farm Road and Burr Street bridges boast medallions inscribed with the initials "CHD" for the Connecticut Highway Department. A classically styled winged wheel, symbolizing speed and transportation, appears on the Stanwich Road Bridge in Greenwich (CT-72). Several years later, Dunkelberger would again employ this motif on a parkway bridge. The Route 121 Bridge on the Wilbur Cross Parkway in Milford features not simply a winged wheel, but a winged automobile tire, speeding forward leaving a torrent of Art Deco air streams in its wake.

Occasionally, Dunkelberger allowed the structural elements of his bridges to stand on their own with little or no ornamentation. The battering of the pylons and articulation of the arch are the only ornamental features of the Taconic Road Bridge, Greenwich (CT-71). Though surmounted by a decorative railing, the steel rigid frame of the Clinton Avenue Bridge (CT-100) in Westport stands unadorned except for the bolts that hold it in place. The Saugatuck River Bridge (CT-99), also in Westport, with its exposed steel arches, is undoubtedly Dunkelberger's boldest visual statement of unadorned structure.

One of the most commented upon aspects of the Merritt's bridges, both when the parkway opened and today, is that the architectural treatment of each bridge is unique. While this was not unprecedented--Gilmore Clarke did the same with the bridges he designed for the Long Island parkways--it was unusual.⁵⁵ According to Dunkelberger, varying every bridge was a conscious decision by the highway department to emphasize the fact that the Merritt Parkway was different from the state's other roads. The department also believed that varying the bridges would relieve the monotony that would have resulted from the sequence of seventy-two typical highway bridges. If designed individually, each bridge would enliven a journey on the Merritt, providing constantly changing scenes that would have "a satisfactory and pleasing effect on the mind of the traveler as well as on that of the casual observer."⁵⁶

The extent to which the Merritt's stylistic gyrations accomplished this is best judged by public response. In general, the bridges, which were featured in publications ranging from trade journals to national newspapers, received good reviews. Better Roads found the "different exteriors of grade

⁵⁴ Dunkelberger, "Design of Merritt Parkway Bridges," 10.

⁵⁵ Robert Caro, Powerbroker: Robert Moses and the Fall of New York (New York: Alfred Knopf, 1974), 230.

⁵⁶ Dunkelberger, "Highway Architecture," 117.

separations" on the Merritt as especially interesting.⁵⁷ The New York Times described the bridges as "handsome," noting elsewhere that each stylistic change "suit[ed] the immediate surroundings."⁵⁸ Dunkelberger, who had striven to design bridges both individual in architectural character and pleasing to parkway motorists, wrote that the highway department was overwhelmed by letters commending the "difference in the design of these structures."⁵⁹

Techniques for Bridge Ornamentation

The decorative elements of the Merritt's many different bridges were created using a variety of techniques for working concrete, stone, and metal. While the stonework and metalwork of each was fairly standard, the cast concrete offers a high degree of originality. By exploiting existing techniques for precasting and forming concrete, Dunkelberger and his assistants created a multitude of imaginative designs with complex color schemes, textures, and patterns. However successful these designs appeared on paper, they would have remained unrealized without a corp of talented local artisans and skilled laborers to execute them in the workshop or at the construction site.

The concrete ornaments of the Merritt's bridges were either precast or cast in-situ. The latter meant the concrete was poured into the formwork in the exact location where the ornament would appear on the finished bridge, and it hardened in place as part of the overall structure. Though Commissioner Macdonald declared this kind of formwork ornamentation a "new system" discovered in the "search for originality and in the exercise of imagination in design," engineer Sumner described it as customary.⁶⁰

In-situ casting was used to produce a variety of molding and paneling features on the Merritt's bridges. On some, formwork casting was used to create patterns or textures covering the entire bridge surface. For example, the Redding Road (CT-107) and Nichols-Shelton Road (CT-125) bridges, in Fairfield and Trumbull, respectively, appear to be composed of individually articulated vertical panels. Actually, these surfaces are of one piece with the "panels" created by divisions within the formwork, or by plaster waste molds. This panelled effect is most apparent on the Madison Avenue Bridge (CT-117) in Trumbull. Here, the vertical panels are concave, creating a gently undulating bridge surface. Sometimes the exterior surfaces produced by casting mimic other materials. On the Morehouse Highway Bridge (CT-113) in Fairfield, the repetition of grid-like grooves give the appearance of tiles, some plain, others with a wavy pattern across their surface. On the Merwins Lane Bridge (CT-106) in Fairfield and Main Street Bridge (CT-118) the wingwalls resemble overlapping clapboards. The surfaces of several bridges were incised to resemble rustication, voussoirs, quoins, and other cut-stone blocks, illustrated in bridges at James Farm Road (CT-129) in Stratford, North Street (CT-70) in Greenwich, Ponus Ridge Road (CT-81) in New Canaan, and Round Hill Road (CT-68) in Greenwich.

Precast ornaments including concrete railings, small-scale sculpture, and relief panels were

⁵⁷ "Highways Advance," Better Roads (January 1938), 31

⁵⁸ "Merritt Parkway Motto," New York Times, 26 November 1937, p. 20 (1); "Engineers View Merritt Parkway," New York Times, 1 October 1937, p. 16 (1);

⁵⁹ Dunkelberger, "Highway Architecture," 117.

⁶⁰ John A. Macdonald, "The Merritt Parkway," in Highway Commissioner's Biennial Report (Hartford: State Highway Department, 1940), 130. See also Sumner, 503.

fabricated off-site in nearby workshops. The controlled environment of the workshop allowed a level of precision for shaping intricate patterns and delicate details that could not have been achieved at the construction site. Examples of precast ornament include the butterflies on pylons at Fairfield's Merwins Lane (CT-106), each cast in one piece, and the frozen fountain and sunburst ornaments on Stamford's Long Ridge Road (CT-76) and New Canaan's South Avenue (CT-84) bridges, each cast in several pieces. Upon completion, precast panels were installed by hanging them from the bridge formwork with L-shaped strap anchors protruding horizontally from the back of each panel. During installation, the face of each panel was protected with a layer of plywood to prevent damage. According to Dunkelberger, contractors handling ornament installation had to be "educated" and made "to realize that care must be used at all times to prevent injury to the different types of material incorporated" into the parkway's bridges.⁶¹

Though precasting was excellent for achieving a high level of detail, it was often difficult to match the appearance of precast ornaments with their bridges. Unless the concrete mixtures were exactly the same for bridge and ornament, there would likely be variation in both color and texture. While such accidental variation might seem like a drawback to precasting, Dunkelberger saw it as an attribute, noting, "I rather like the idea of having [the ornament] different in color and texture in order to relieve the monotony of the tone of the mass."⁶² Sometimes, variation in the color was intentional. Color was incorporated into the precast mix by using either colored aggregate or tinted cement. Cement was usually tinted with mineral pigments, which could be added as 10 percent of the cement without affecting the strength of the concrete. Some pigments that may have been used for Merritt bridges were iron oxide for a red tint, white portland cement for a white tint, chrome copper oxide for a light-green tint, burnt umber for a brown tint, and lampblack, torch black, or black oxide (all from copper) for a gray or black tint. While this range of colors was appealing, with the exception of portland cement, all these pigments are impermanent when exposed to weather as severe as Connecticut's cold winters and hot summers.

Colored aggregates offered more durability and, according to Dunkelberger, offered "almost every color of the rainbow."⁶³ White or yellow marble provided a light tint; black marble, iron slag, or blue granite provided a darker hue. The decorative panels on the Marvin Ridge Road Bridge (CT-86) in New Canaan used both light and dark aggregates. The urns, cast with white marble aggregate, stand out in contrast to the background niche colored with blue vitreous aggregate. Glass shards, metal chips, mosaic cube, and mother-of-pearl were used to achieve a reflective surface which, according to engineer Willis, "produce[d] a scintillating effect under headlights or the direct rays of the sun."⁶⁴ For example, white quartz added to the aggregate for the ornaments at James Farm Road at Stratford resulted in the truly sparkling surface of the wings surmounting the bridge railing. Construction drawings indicate that color aggregate was used on numerous parkway bridges, though it is not always evident. Red vitreous aggregate is specified in the drawings for the Clinton Avenue Bridge in Westport to tint the diamond-patterned panels on the pylons. Today, the red has faded.

On some bridges, portions of structural concrete were colored with aggregate, as on the Merwins

⁶¹ Dunkelberger, "Design of Merritt Parkway Bridges," 10.

⁶² Dunkelberger, "Design of Merritt Parkway Bridges," 8.

⁶³ Dunkelberger, "Highway Architecture," 123.

⁶⁴ Willis, 794.

Lane Bridge in Fairfield, which was originally green. For such large areas the aggregate was usually 1/4" to 1/2" in diameter. Colored aggregate would also be used in moldings cast in-situ as part of the formwork, and in the facing mixtures for decorative panels. On the Wire Mill Road Bridge (CT-77) in Stamford, for example, a row of dentils is cream color, while the bottom rail of the balustrade surmounting it is gray.⁶⁵ Facing mixtures were either poured with the concrete using a moveable dam or plastered onto the finished structural concrete after it had cured. On the Merritt, most facing was probably poured into a horizontal form then topped by a thin layer of concrete. The colored aggregate was exposed by brushing the surface while the concrete was still green, by tooling the hardened concrete with hammers, or by polishing. The boldest use of colored aggregate facing mixtures is the striping of Trumbull's Main Street Bridge (CT-118) abutments where two wide cream-colored bands alternate with thinner bands of dark green that have chips of green mica and glass as aggregate.

Cast stone is another kind of facing mixture used to give several concrete parkway bridges the convincing appearance of real stone. As Dunkelberger put it, cast stone "creates the atmosphere of the stone bridge with the economy of that of concrete."⁶⁶ The "ashlar masonry" of the Frenchtown Road Bridge (CT-119) in Trumbull and Newtown Turnpike Bridge (CT-98) in Westport, for example, was created solely using cast stone. Sometimes known as architectural concrete slabs, cast stone had real advantages over natural stone. It was significantly cheaper than the real thing, it did not require an elaborate formwork, and it did not require highly skilled masons to lay it. To create a cast-stone surface, sheets of 4"-thick precast facing, between 12 and 20 square feet, were placed on a concrete frame supported by studs and plywood. A 2" layer of sand was placed between the plywood and cast stone to distribute the pressure, prevent spalling and stop any leaking at joints, then the sheet was tied to the concrete with steel bars. When the studs and plywood were removed, the surface was finished by brushing and spraying off any remaining sand. Dunkelberger favored cast stone because he believed the finishing spray neutralized any lime in the cement, preventing efflorescence on the surface. In addition, he felt that cast stone did not attract dirt and moisture like the rubbed concrete finish.⁶⁷

For the Guinea Road Bridge (CT-73) in Stamford, a mix of real and cast stone was used. The voussoirs are real stone blocks, cut and embedded in the concrete frame, anchored with bars. The rest of the bridge facade is cast. Cast-stone bridges compare favorably with the bridges on the Merritt faced with real stone, including the ragwork Rippowam River Bridge (CT-78) in Stamford and the rubblework Main Avenue Bridge (CT-93) in Norwalk.

Both colored cements and aggregates were used in precast ornaments with sgraffito designs. On the Merritt, sgraffito was used for precast panels, murals, and decorative bands. The sgraffito decorations were produced by layering coats of concrete, each a different color, then scratching or scoring the top layer to expose the base coat beneath. In general, the foundation layer was a dark, with a lighter-color top layer of 1/2" to 3/4". The Grumman Avenue Bridge (CT-96) in Norwalk and High Ridge Road Bridge (CT-79) in Stamford both feature exceptional examples of sgraffito. These panels, depicting griffins holding the Connecticut state coat of arms, consist of a bottom layer of black aggregate traprock and a top layer of concrete made with white cement. The resulting effect is a dark-gray

⁶⁵ Dunkelberger, "Highway Architecture," 128.

⁶⁶ Dunkelberger, "Highway Architecture," 127.

⁶⁷ Dunkelberger, "Highway Architecture," 124, 133.

background and buff-colored figures. On the North Avenue Bridge (CT-103) in Westport, the stylized plant motifs adorning the pylons are sgraffito; the panels have a base layer of 50 percent Swedish emerald pearl and 50 percent Wisconsin black aggregate, with a surface layer of 90 percent white vitreous aggregate and 10 percent micaceous materials.

If the location of the decorative panel within the bridge structure prohibited the use of a precast unit, a plaster reverse mold (or waste mold) was used. Like precast panels, reverse molds were suitable for producing a variety of architectural elements, such as dentils and a Greek key fret on the bridges at West Rocks Road in Norwalk and Reservoir Road in Trumbull, respectively. Reverse molds, producing cast in-situ ornament, were actually built into the concrete formwork. As a result, they assured that the bridge body and the ornament would match in color. Plaster reverse molds were also more efficient for producing intricate designs: it was faster and easier to make a plaster mold than build a lumber formwork. Reverse molds were not without their drawbacks, however. Unless they were carefully designed to eliminate undercutting, the formwork could be difficult, if not impossible to remove without damaging the ornament. Reverse molds also required special attention during construction because each had to be thoroughly vibrated for the concrete spread into all parts of it.

Numerous pylon panels were also formed with reverse molds, including the owls on the Hillside Road Bridge in Fairfield and the garlands on the Cross Highway (CT-105) pylon in Fairfield. The panels on Fairfield's Burr Street Bridge (CT-110) are a fine example of reverse molds used for bas-relief ornament. Reverse molds were also effectively used to fabricate sunk-relief ornament, such as the pilgrim and Indian gracing the pylons of the Comstock Hill Road Bridge (CT-88) in Norwalk.

Larger reverse molds were built to create ornamentation that covers the entire vertical face of a pylon. Such molds could produce a variety of effects: the deeply cut vegetal motif of the White Oak Shade Road pylons (CT-85) in New Canaan, the shallow flutes and stepped forms of the Black Rock Turnpike pylons (CT-111) in Fairfield, and the delicate Gothic tracery of the New Canaan Avenue pylons (CT-87). The highway department believed the use of reverse molds on the Merritt bridges contributed to the techniques's widespread application following the parkway's completion. According to Commissioner Macdonald, never before had reverse molds been used so extensively, elaborately, and with such success as they were on the Merritt.⁶⁸

Though most of the embellishments on the Merritt Parkway bridges were rendered in concrete, some were fashioned from metal. All metal details were fabricated off-site, and a few were ordered from catalogs, including the railing and molding on High Ridge Road Bridge in Stamford. During construction, metal ornaments were sometimes preferable to concrete because they required little attention to detail. Installation could be handled by less-skilled laborers who merely bolted or welded ornaments in place without concern for mold vibrations or surface damage. Metal bridge details were made mainly from wrought iron, cast iron, malleable cast iron, and steel. Malleable cast iron was thought to be especially appropriate for bridge railings, as its inherent elastic qualities made it shock resistant. Brass and bronze were used occasionally, for the cast-brass shields of the Grumman Avenue Bridge in Norwalk, and the precast panel with the state seal in metalized bronze on the Newfield Avenue Bridge in Stamford.

The intricate, open designs typical of ornamental railings naturally lent themselves to metal work

⁶⁸ Macdonald, Highway Commissioner's Biennial Report, 130.

and, indeed, many metal railings exist on the Merritt bridges. Examples include the cast-iron railings of bridges carrying Clinton Avenue (CT-100) in Westport, the steel railings of West Rocks Road Bridge (CT-94) in Norwalk, and the mixed-metal (steel, cast-iron, and malleable cast-iron) railings of Merwins Lane Bridge (CT-106) in Fairfield. Metal-malleable cast iron or steel--was also used to fabricate large decorative grilles. The grapevine grilles on the bridges of Lake Avenue (CT-69) in Greenwich and Huntington Turnpike (CT-126) in Trumbull are malleable cast iron that was made in Certrock, a material similar to plaster of paris that lent strength and hardness. On the Huntington Turnpike crossing, each grille was cast in three sections with a minimum thickness of 1½" and weighing 1,000 pounds.⁶⁹ The Main Street Bridge (CT-118) in Stratford features a particularly striking use of metal ornament, with oversized flowers and leaves adorning both sides of the rigid frame; these were fabricated elsewhere and welded to the frame in the field. After installation, workers used blowtorches to shape the petals and leaves for a more three-dimensional effect.

Alterations

In the fifty years since the parkway's completion, a number of bridges have been altered in response to needed maintenance and repair, changing safety standards, and new traffic realities. Three original bridges are gone: Silvermine River, Nichols-Shelton Road, and Huntington Turnpike. The Silvermine River Bridge in Norwalk washed out in a 1955 flood. Two temporary bridges were quickly erected across the river, but not until December 1957 did the highway department complete a permanent replacement bridge, 15' higher than the original to prevent another wash-out.⁷⁰ In 1979, the Connecticut Department of Transportation (ConnDOT) demolished the Nichols-Shelton Road and the Huntington Turnpike bridges in Trumbull during the expansion of the Route 8 and 25 interchanges. Utilitarian replacement structures were completed in 1983. One additional crossing, Rocky Hill Road Bridge in Trumbull, was partially dismantled in 1990; this railroad span was abandoned in 1939.⁷¹

Due to increasing deterioration from traffic and weather conditions, ConnDOT has altered or completely rehabilitated several bridges. Significantly, only two such projects were needed before the 1980s, the bridges having held up well for more than forty years. In 1956, the deck of the Byram River Bridge in Greenwich was enlarged to accommodate its access road without a narrowing of lanes, thus eliminating a major bottleneck on the parkway. Concurrently, the balustrade on the north side of the bridge was replaced. In 1974, due to serious deterioration, the original deck and balustrades of the Riversville Road Bridge, also in Greenwich, were replaced.

By the late 1970s, much of the Connecticut's highway infrastructure was in substandard condition. In May 1980, the state legislature compelled the department of transportation to evaluate every bridge in the state and develop a ten-year plan for resurfacing and repair.⁷² Several years later, the creation of the Special Transportation Fund and the Bridge Infrastructure Renewal Program enabled ConnDOT

⁶⁹ Dunkelberger, "Highway Architecture," 130.

⁷⁰ Richard H. Parke, "\$420,488 Bridge at Norwalk to End Slowdown on Merritt Parkway Soon," New York Times, 15 November 1957, sec. 1, p. 29.

⁷¹ "No Trains for Rail Bridge," New York Times, 29 October 1939, p. 39 (1).

⁷² 1984 Bridge Infrastructure Renewal Program: Midpoint Report as of June 30, 1989 (Wethersfield: Connecticut Department of Transportation, Bureau of Highways, 1989), introduction.

to undertake this, with the ultimate goal of repairing or replacing more than 1,600 bridges by 1994.⁷³ Repairs to several Merritt Parkway bridges were funded through this program. In 1988, all loose and spalling concrete was removed from the bridges at Riversville Road in Greenwich, Newfield Avenue in Stamford, West Rocks Road in Norwalk, and Clinton Avenue in Westport. The bridges were then patched, sealed, and painted. From 1988-90, similar repairs were made to the Stanwich Road, Marvin Ridge Road, and Comstock Hill Road bridges, at Greenwich, New Canaan, and Norwalk, respectively.

The current decade has brought a renewed effort of bridge maintenance. In 1990 ConnDOT replaced and widened by 4' the deck of the Saugatuck River Bridge in Westport. In 1992, new decks were installed on the High Ridge Road Bridge in Stamford and the White Plains Road Bridge in Trumbull. The same year, all concrete surfaces on New Canaan's White Oak Shade Bridge and Fairfield's Burr Street Bridge were refurbished. Routine repainting of metalwork, removal of graffiti, and trimming of overgrown vegetation are also part of the current bridge-maintenance program.

⁷³ 1984 Bridge Infrastructure Renewal Program, 2-4.

Chapter 12:
Service Stations, Maintenance Garage, and Toll Plazas

In marked contrast to the majority of the Merritt's bridges, which display the stylistic hallmarks of Art Deco and *Art Moderne*, the parkway's other structures--its service stations, garage, and toll plazas--evince more traditional, but equally contemporary, styles of architecture. Just as the overall plan of the Merritt reflected current trends in parkway and highway design, so the design of the "modernistic" bridges and the Colonial Revival and rustic buildings reflected the disparate fashions of American architecture of the 1930s.

Service Stations

There are three pairs of service stations on the Merritt Parkway--in Greenwich, New Canaan, and Fairfield. These locations were chosen because they were reasonable distances from each other and because the topography of each location "suitably len[t] itself to such a development."¹ The stations were built by the highway department in 1940-41 to Colonial Revival designs by George Dunkelberger. Owned by the state, the stations were operated by private companies authorized by the Merritt Parkway Commission. Since the commission had jurisdiction over the stations, it was able to dictate the terms of the agreement, which leased the stations first to the Tide Water Associated Oil Company and later to other private firms. The commission prohibited the erection of billboards and stipulated that Tide Water could offer only services necessary to the immediate and safe operation of cars using the parkway, such as gas refills, tire changes, etc.

The service stations were built in pairs for several reasons. The first was related to anticipated fluctuations in traffic volumes at various times of the day--southbound in the morning and northbound in the evening. By locating identical stations and pumping equipment on opposite sides of the parkway, motorists' needs could be met quickly and efficiently at all times. One roster of employees could staff both stations, with workers shifting back and forth between northbound and southbound stations as traffic warranted.² The paired arrangement also precluded motorists from having to cross the parkway into opposing lanes of traffic to enter a station. A layout similar to the Merritt's pairing of stations was recommended by Thomas Sharp in 1932, as the best arrangement to reduce the hazard of vehicle collisions.³

Each station faces the parkway, but is set back from the roadside. Though there were plans to build the stations behind natural screens such as knolls or outcrops, they were never realized. A thin divider separates the service station from the roadway, which was originally landscaped with a formal arrangement of trees and shrubs around a flagpole. The stations are reached by at-grade exits from the right traffic lane. These lanes were designed to permit motorists to re-enter the parkway without greatly diminishing their cruising speed; and while they function well in this capacity, they are too short to allow

¹ A. Earl Wood, "Merritt Parkway History and Plan," Connecticut State Journal (August 1935), 34.

² "Motorists Demand Fast Service at New Parkway Stations," National Petroleum News, 30 October 1940, 37.

³ Illustrated in Gilmore D. Clarke, "Modern Motorways," Architectural Record 74 (December 1933): 436.

adequate deceleration. Drivers must, therefore, brake quickly before pulling up to the gas pumps or the parking area beyond the station building.

While the stations were under construction, parkway advocates such as the Fairfield County Planning Association (FCPA) wanted "offensive" but necessary mechanical equipment such as pumps placed to the rear of the stations, out of sight of the roadway so as not to "mar an otherwise beautiful strip of parkway planting."⁴ Despite lobbying efforts, the gas pumps remained in front of the stations, but set back from the road on concrete pads that curved outward toward the parkway, between the median and the station building. The set-back pumps were considered a substantial improvement over the curbside pumps typical of older gas stations lining the Post Road, which were regarded as a chief contributor to roadside clutter.⁵ If not wholly aesthetically pleasing to parkway advocates, the configuration functioned well, leading National Petroleum News to label the Merritt stations the "service stations of the future."⁶ Today, gas pumps sit on rectangular concrete pads and are covered by steel low-pitched gable canopies.

The station buildings are rectangular, one-story structures with side-gabled low-pitched roofs clad in slate. Originally, each station consisted of a larger main unit and a smaller flanking unit. The New Canaan stations (CT-133, 134), the first built, are faced with red brick, as are the Fairfield stations (CT-136, 137), though the brick has been painted tan. The Greenwich stations (CT-131, 132) are faced in coursed, random-ashlar stone masonry. The main unit of each station has a higher roof with a brick chimney to one side. It also features a centrally placed round-headed dormer framing a clock. The dormer roof is sheathed in copper and the front face is ornamented with turned wood balusters. Originally, a three-sided bay window was located on the front facade below the dormer, flanked by drainpipes and colonial-style lanterns. An entrance portico with a decorative screen and a wood door within a segmented archway were placed on opposite sides of the bay at each end of the unit. The windows are eight-over-eight-light, double-hung sash. The smaller components also feature two octagonal windows on the front facade.

Over the years, the station buildings have been altered according to changing commercial styles and motorists' needs. In 1958 the stations were expanded by 900 square feet and the interiors were completely refurbished, following complaints that the stations were badly deteriorated and hence provided tourists with a negative first impression of Connecticut.⁷ The parking lot and parkway-access lanes were also repaved at this time. In 1988 the stations were again remodeled and today, each service station has an addition that houses public toilets that are much larger than the originals. At Greenwich and Fairfield, the one-story rectangular additions--with exterior facing identical to the original structure--almost double the stations' size. At New Canaan, the square, flat-roofed addition is faced with brick and painted white. Glass and aluminum storefront glazing replaced the original doors and windows of the front facades. Textured-glass windows on the additions are sized and fitted with fake muntins that match the earlier

⁴ Fairfield County Planning Association, "Parkway Accessories," A Planned County Emerges (October 1938): 6.

⁵ See Wilbur H. Simonson, "The Roadside Picture: A Hindrance to Traffic? or an Inspiring Asset to Travel?" Landscape Architecture 30 (October 1939): 34.

⁶ "Motorists Demand Fast Service at New Parkway Stations," 37.

⁷ "Parkways Scored on Gas Stations," New York Times, 13 February 1959, p. 29 (1).

windows.

Each station originally contained a service and storage room, a lounge "fitted with modernistic furniture," and men's and women's restrooms. The women's room featured "modern conveniences" such as electric baby bottle warmers and baby toilet seats. On weekends and holidays, a "matron" employed by the gas company was stationed in the women's room to assist mothers with small children.⁸ Today, the interiors have been completely refurbished. The larger of the two rooms contains a cashier's booth, beverage coolers, and metal display racks. The smaller room has a beverage bar and functions as the passageway to the restrooms. The remainder of the building is used for storage.

In styling and massing the Merritt's service stations are similar to those originally constructed on numerous parkways in neighboring Westchester County. Indeed, the Greenwich stations, with their random-ashlar masonry, are nearly identical to stations built on the Hutchinson River Parkway in the mid 1930s. Beyond physical resemblance, the station designs share a similar intent. On Westchester parkways, the service stations were planned to meet the requirements of site and use in a straightforward manner and, most important, were consciously designed to "harmonize with the character of parkway development."⁹ With their unassuming facades and homey details like chimneys and lanterns, the service stations achieved a look more like the country inns of Connecticut's back roads than the gas stations of a brand-new ultra-modern highway.

The stations' similarity to Westchester County structures is hardly coincidental. Highway-department designers acknowledged that they studied Westchester's parkways closely. And the FCPA had long advocated that "simple colonial structures" like those on Westchester County's parkways be built on the Merritt. According to the FCPA, colonial stations would add a "touch of New England architecture" to the Merritt's landscape.¹⁰ The FCPA's comments reflected an attitude toward roadside structures that gained widespread support in the 1930s. In 1935, Wilbur Simonson, senior landscape architect for the U.S. Bureau of Public Roads, called for architectural roadside improvements that expressed "the distinctive beauties of the individual states or regions" through "appropriate design and local materials." Simonson favored well-designed gas stations that reflected the "craft and materials" of the region and counteracted current trends toward "standardization."¹¹ As examples of well-designed and non-standardized service stations, Simonson singled out for special praise several in Colonial Revival styles, particularly those being built in such appropriately "colonial" locations as New England and Virginia.¹²

The "standardization" of the 1930s to which Simonson referred was begun by large oil companies. Mobil and Sunoco, for instance, hired architects and industrial designers to create corporate

⁸ "Motorists Demand Fast Service at New Parkway Stations," 36.

⁹ John Nolen and Henry V. Hubbard, Parkways and Land Values, Harvard City Planning Studies, XI (Cambridge: Harvard University Press, 1937), 81.

¹⁰ "Parkway Accessories," 6.

¹¹ Simonson, "The Practical Side of Roadside Development," American City (June 1935), 58.

¹² Of course, Simonson failed to acknowledge that even when vernacular styles were "in harmony with the spirit" of a particular region, if repeated *ad nauseam* in station after station, they became just as stale any standardized station.

identities through logos, advertisements and, most especially, model service stations. Walter Dorwin Teague's 1936 prototypes for Texaco service stations are a prime example. With large, illuminated signs emblazoned with the Texaco star, sleek glass-and-steel canopies, colored structural-glass facades, and newly streamlined gas pumps, Texaco's service stations were a far cry from the modest stone-and-brick structures of the Merritt Parkway--just the way parkway supporters wanted it.

Maintenance Garage

Behind the southbound New Canaan service station is a large maintenance garage (CT-135), designed by George Dunkelberger and built in 1940. Today the garage houses the trucks, equipment, and personnel needed for daily maintenance of the parkway, but originally it included offices for a highway-department landscape staff and the state police. The front-facing T-plan building consists of a front office and the long, perpendicular garage wing in the rear. The building is red brick laid in Flemish bond and sits on a concrete foundation.

The formal office block consists of three projected gable-end pedimented pavilions that collectively resemble a shallow E plan. The central pavilion has four brick pilasters flanking a semi-elliptical arched and recessed entranceway; the pediment contains an oculus set in an ornate frame. Eight-over-eight-light double-hung sash like those in the service stations are used throughout. This pavilion extends back beyond the main office block and connects to the garage wing. Each flanking pavilion features brick quoins, a broken horizontal cornice, and windows set in blind arches. On the side facade, three six-over-six-light double-hung sash are set in a recessed brick frame. On the rear facade, two overhead garage doors originally flanked either side of the intersecting garage block. These have since been replaced with swinging metal security doors. The gable roof, hipped at each end, is covered with slate shingles.

The office block is separated from the garage proper by a transitional space one bay wide. Brick quoins define the corners of the block. The overhead doors on either side are set into a recessed frame crowned by brick dentils. Each door is surmounted by a bricked-in octagonal opening, the same size and shape as the octagonal windows of the stations. The flat-roofed garage is ten bays long. Originally, eight bays were accessed on both facades of the wing via an overhead garage door, allowing vehicles to drive through; the two last bays were bricked in. Today, the garage doors are gone and most of the bays have been filled in with brick; the rear facade features three porthole windows filled with glass block. The wing's only ornament is a continuous meander stringcourse above the garage doors.

Though the maintenance garage was intended, like the service stations, to "blend into the surrounding landscape," its size alone made this a difficult proposition: the garage is 26' wide x 90' long.¹³ The building is situated so that the long garage wing faces the parkway, although currently the view of it is obscured by vegetation. Originally, as motorists approached the New Canaan service station travelling south on the parkway, they would have perceived the garage and station almost simultaneously. Though the station is closer to the parkway, the imposing Colonial Revival facade of the office wing would have easily caught motorists' attention. Presumably, such a formal facade, with its restrained details and strict symmetry, did not blend into the countryside as much as the less-refined service stations. That was acceptable, however, it was relatively unique as the official and somewhat grandiose home to police and highway-department officials. Today, the facade is overgrown with ivy, and large trees dwarf

¹³ "State May Build Garage and Two Gasoline Service Stations on Parkway Here," New Canaan Advertiser, 9 February 1939, p. 1.

the office facade.

As motorists once passed beyond the service station, their image of the maintenance garage changed entirely. They were confronted with a clear view of eleven garage doors whose crisp white paint stood out in sharp contrast from their dark red-brick frames. Because the paved area in front of the building was (and still is) used for maneuvering large maintenance trucks into and out of the garage, no landscape treatment was practical. From the parkway, the garage facade must have stood out rather starkly, with no calculated vegetation to soften its lines. In some ways, these contrasting views of the maintenance garage--one picturesque, the other utilitarian--signify the inherent dichotomy of the Merritt itself, as it tried to simultaneously satisfy the aesthetic requirements of a recreational parkway and the functional requirements of a modern commuter highway.

Toll Plazas

In 1939, a temporary toll plaza was erected on the Merritt in Greenwich, after the imposition of a 10-cents toll on the parkway. Consisting of four prefabricated plywood booths designed by George Dunkelberger, the plaza was erected in just one day. These simple, stud-framed structures had projecting windows and signs reading "Stop, Toll 10c." The first toll collectors on the Merritt sported bowties and pith helmets, and wore change belts around their waists.

A permanent toll plaza replaced the temporary one in 1940. The following year, another permanent Merritt Parkway toll plaza was erected on the east embankment of the Housatonic River in Milford. These plazas consisted of two structures--a canopy covering the toll booths and a small hut housing a toll administrative office. The toll canopies were simple frame structures. Pairs of debarked tree-trunk columns, resting on log plinths, stand at each corner of a concrete base, supporting log trusses. The trusses support beams at the eaves, ridge, and halfway up the roof, which in turn support closely spaced log rafters. The hip roof is covered with wood shingles. Traffic lights were mounted just above the eaves. As originally constructed, the plaza canopy had four interior toll booths, spaced evenly under the canopy and supported by interior trusses. The booths were small stud-framed structures clad with diagonal wood siding; the upper portion of each contained sliding windows. In 1950, two free-standing booths were installed, one on each side of the plaza, following complaints about traffic congestion. These were identical to the original attached booths, except that they had a shingled pitch roof.

The administrative hut, similar in style to the toll canopy, was a frame structure clad with horizontal wood siding with an overhanging shingled hip roof, log rafters extending below the eaves, and a large rubble-work chimney.

In 1988, tolls on the Merritt were abolished and the plazas were removed--the Greenwich toll plaza to Greenfield Village in Dearborn, Michigan, and Milford toll plaza (CT-63-80) to Boothe Memorial Park in Stratford, Connecticut.¹⁴ Today, the extant tollbooths in Stratford are painted forest green, some truss work has been removed, and the booths at the sides of the plaza have been replaced with plywood structures.

The rustic log cabin style of the toll plazas was analogous to contemporary structures being erected in state and federal parks across the country in the late 1930s and early 1940s. Connecticut was

¹⁴ The toll plazas were removed as part of ConnDOT project #56-215.

actively building state parks in this period and many, such as Sleeping Giant in Hamden, have structures similar to the Merritt toll booths. Remove the toll booths and the wood canopy could just as easily shelter picnic tables. The Merritt's toll plazas were strikingly different from the modern, sleek metal-and-glass plazas built for contemporary public projects such as New York's Holland Tunnel and the Triborough Bridge, or the Pennsylvania Turnpike. Since the Merritt was, at least in name, a road through a park, the rusticity of its toll plazas was not inappropriate.

Chapter 13:
Signs and Guardrails

The signs and guardrails of the Merritt Parkway have been altered radically over the years, subject to changing requirements of safety, visibility, and durability. The gradual shift from decorative, but functional, signs and railings to more utilitarian roadside furniture reflects the divergent tendencies of prewar and postwar American highway design.

Signs

Since the Merritt opened in 1938, at least three different types of signage have been installed on the parkway. The earliest, exit markers erected in 1938-40, were rough-cut wood signs with jagged edges, mounted on wood posts (CT-63-82). According to contemporary accounts, the sign boards were painted dark green with white letters.¹ These letters, not painted, but actually mounted to the signs, were delineated by glass reflector buttons that made them visible at night. This indirect lighting method was the same employed for the parkway's curbs. The signs' lettering were a sans-serif style, generally all capitals. Signs placed well in advance of interchanges stated what routes and towns could be reached by each exit road. Period photographs indicate that these wood signs were the parkway standard, used not only to mark exits, but for speed limits as well.

The Bureau of Roadside Development was responsible for designing the original signs on the Merritt Parkway. Prior to their erection, the bureau chief described the exit and traffic markers as a "new and distinctive type of wayside sign," never before used.² However, a 1939 New York Times reporter found the signs similar to those already in use on the Long Island and Westchester County parkways. The newspaper also perceived the design intention of the signs, noting that their rustic-wood style fit "appropriately into the parkway theme."³

Sometime in the 1940s, additional signs were added to the parkway to identify the underpasses. These simple, two-panel signs indicated both the road and the town in which it was located. Each panel consisted of a white arrow with dark letters superimposed on a long, narrow, dark background, one name per panel. The signs were mounted, one on top of the other, onto a metal post. Period photos show that there was no standard governing which name--town or road--was placed on top.

In the 1950s, the traffic division of the highway department prepared drawings for a series of new signs for the Merritt and Wilbur Cross parkways. Those intended for the Merritt included informative and prohibitory signs, as well as exit and underpass markers. One design, a 90" x 36" placard indicating entry to a service station, included a large blank space to which the oil company operating the station could affix its trade mark or logo. Had this sign been erected it would have constituted one of the earliest advertisements on the Merritt. As specified in the design drawings, the signs were to be made of

¹ George M. Mathieu, "New Road Northeast," New York Times, 12 November 1939, p. 1 (10).

² A. Earl Wood, "The Merritt Parkway History and Plan," Connecticut State Journal (August 1935), 34.

³ "New Road Northeast," 1.

Reflectorite or Scotchlite rather than wood, with green backgrounds and silver letters in an Egyptian Revival style. For night visibility, they were to be "reflectorized as per instructions of the highway department."⁴ The signs were edged on two sides with "type A shingling" that mimicked the rough-cut edges of the old wood signs; they were mounted on metal posts. Some of these signs were eventually erected on the Merritt. Within the parkway setting, they appear as strange hybrids--their mock rustic styling a flimsy gesture toward aesthetics in the face of utilitarian realities.

Periodically, special signs were erected on the parkway by organizations other than the highway department. In 1959, for example, the Connecticut state police put up signs as part of a traffic-safety campaign. Two 8' high cut-outs of policemen greeted motorists in Greenwich with a caption reading, "Welcome, please obey our rules."⁵ Currently, the Metropool ride-sharing program has posted white, black, and green signs to encourage car pooling on the Merritt.

Posting signs on the Merritt Parkway is still restricted, regulated by the Connecticut Department of Transportation. Today, the Merritt is marked with mostly standard-issue metal highway signs erected in the past twenty years. These signs include those for exits, speed limits, route numbers, mileage, underpass names, curves, and clearances. Most are coated with reflective paint to make them visible at night, but a few older signs still have letters delineated with reflector buttons, such as that for exit No. 48 at Frenchtown Road Bridge, indicating the egress for Long Hill and Monroe.

Guardrails

The Bureau of Roadside Development was responsible for designing and erecting guardrail fences on the shoulders of the parkway at hazardous points. Early in the construction process, highway engineers realized that fences of some type would be required on both embankments and slopes. They began to experiment with various designs, building sample fencing at several points on the roadway for comparison. One experimental design was a rock fence that consisted of large boulders excavated from cuts on the parkway. The boulders, roughly hewn to make them stand upright, were lined side to side to form a contrived-but-naturalistic barrier. This design was discarded before construction was finished; perhaps the predictable consequence of a speeding car crashing into a large boulder was viewed as less than ideal.

The design that won out over the rocks was a wood guardrail that was installed on the parkway beginning in 1938. Constructed of "sturdy hand-hewn" oak, stained to preserve the wood and "enhance its natural appearance," the fences were described by the New York Times as "heavy rustic affairs (CT-63, Sheet 21 of 21)."⁶ The tops of the square posts were bevelled and all sides were adzed to give a further rustic quality. Oak rails were attached to the posts with wood dowels and galvanized-steel bolts. Low, single rails were erected at axle-level on flat slopes; double rails were erected on steep embankments. By the mid 1930s, such fencing was commonplace, particularly along scenic routes. In 1934 American City reported that wood guardrail fences like those on the Merritt enhanced both highway

⁴ See "Informative Sign No. MP-19," Merritt and Wilbur Cross Parkways, Sign Project (Hartford: Traffic Division of State Highway Department, 1950-57) in CT-63 field notebook.

⁵ "Connecticut Police Plant Sign," New York Times, 28 August 1959, p. 25 (1).

⁶ A. Earl Wood, "Development of the Merritt Parkway," Connecticut Woodlands 2 (September 1937): 4; "Barringers Chop Fence Rails Off," New York Times, 23 August 1938, p. 19 (1).

safety and attractiveness.⁷

By the 1950s, with increased traffic volumes and speed, the original oak fences were no longer adequate to prevent vehicles from running off the roadway. From 1954-56, therefore, improved guardrails were installed in every community on the parkway. The new cable-link rail system consisted of oak bollards lining the roadway edges, joined by two strands of twisted steel cable. While this was more effective than its wood predecessor, it was still rustic enough to blend into the sylvan parkway setting. Today, the cable-link rails are still in place along some stretches of the Merritt.

These guardrails were hardly an innovation in the 1950s. In fact, according to Robert Caro, the bollard-and-cable system originated in the 1920s--the product of engineers working for Robert Moses on the Long Island and Westchester County parkways.⁸ Moses wanted rustic wood fences on the parkways, but his engineers, arguing that wood wasn't safe enough, wanted iron rails. To satisfy both Moses' aesthetic requirements and their own safety concerns, the engineers devised a combination wood-and-steel fencing nearly identical to what was installed on the Merritt thirty years later. In Connecticut, similar fencing had been used on state roads since the early 1930s, after a court decision forced the highway department to spend \$500,000 to replace wood fences with stronger "wire rope" versions.⁹ Why the older fencing type was installed on the Merritt is a mystery.

In the late 1950s, an increasing number of fatalities occurred on the parkway from cars jumping the median--ten motorists died in the first five months of 1957 alone. Responding to mounting pressure to make the parkway more safe, the highway department announced a plan to erect guardrails along the median at the parkway's seven most dangerous curves: at Round Hill Road and Lake Avenue in Greenwich, Long Ridge Road and Newfield Avenue in Stamford, Old Stamford Road in New Canaan, Main Avenue in Norwalk, and Park Avenue in Trumbull.¹⁰ The proposed barriers were 2' high and consisted of double-faced steel rails fastened to posts made of either steel, concrete, or wood. The barriers were coated with luminous paint to make them visible at night. Steel barriers known as W-beam rails were eventually erected.

In order to make room for the barriers, it was necessary to remove a significant number of trees from the median. This resulted in public outcry, despite the fact that twenty-two persons had died as a result of crashing into median trees. The highway department wanted to remove all trees with a diameter greater than 3"; tree conservationists did not want them to remove any. Eventually, a compromise was reached and thirty-six trees were felled.¹¹

The W-beam guardrail was so successful at preventing fatal accidents that in 1963 plans were

⁷ "Highway Safety Enhances Attractiveness," American City (September 1934), 85.

⁸ Robert Caro, Powerbroker: Robert Moses and the Fall of New York (New York: Alfred Knopf, 1974), 230.

⁹ Press release, 14 February 1930 (Hartford: State Highway Department).

¹⁰ Richard H. Parke, "Steel Lane Barriers to be Built to Cut Merritt Parkway Deaths," New York Times, 23 May 1957, p. 35 (1); "Steel Rails Along Parkway Scheduled," New Canaan Advertiser, 23 May 1957, p. 16.

¹¹ "Parkway Adamant on Removing Trees," New York Times, 6 October 1957, sec 1, p. 48; "State Will Spare 46 of 82 Parkway Trees Marked For Removal," Greenwich Time, 22 November 1957, p. 1.

announced install it on the median along the entire length of the parkway. Beginning in Greenwich, it was installed in five-mile increments over the next six years.¹² Later, W-beam guardrail was also installed on the outer edges of roadways leading up to all underpasses. This was a precautionary measure to reduce the chance of cars crashing into bridge abutments, especially at those underpasses where the median narrows to 16" inches. Beginning in 1986, concrete "Jersey barriers" were installed along several hazardous sections of the roadway, including steep drop-offs and narrow underpasses.

¹² "Steel Fencing Due on Median Along Parkway," New Canaan Advertiser, 1 August 1963, p. 20; "Connecticut Plans Barrier to Divide Merritt Parkway," New York Times, 10 July 1963, p. 37 (1).

Chapter 14:
Landscape

In planning the Merritt Parkway landscape, its designers relied on established precedents for parkway and roadside development. From the principles of parkway landscaping, the Merritt's designers learned to integrate the roadway into the surroundings and create a progression of individual and changing vistas. From the principles of roadside development, they learned to combine these aesthetic goals with requirements of safety, utility, and economy.

Designing the Landscape

Like other aspects of the Merritt, the design of the landscape was handled in-house by the highway department's Bureau of Roadside Development. Though the Bridgeport Post reported in 1940 that three landscape architects, one in each of the parkway's field offices, were responsible for designing the landscape, the notion of a three-person design team has been refuted by subsequent interviews with former highway department employees.¹ Instead, a single architect, Weldon Thayer Chase, is revealed as the primary designer of the Merritt landscape. Prior to Chase's involvement, preliminary landscape planning was carried out by roadside development head A. Earl Wood and landscape architect Russ Barnes. Once Chase assumed design responsibilities, Barnes and Wood continued to work on the Merritt as Chase's collaborators--Barnes as chief inspector of all plant stock for the parkway, Wood as supervisor of the overall project.²

Before Chase began his landscape plans for the Merritt, he made several trips to study parkways already built in New York State, namely in Westchester County, Long Island, and New York City.³ Roadside-development experts encouraged landscape architects working on new construction to take such trips, arguing that successfully completed highways and parkways "studied in plan, profile, and section with a view toward their scenic possibilities" would serve to enhance the designer's own work.⁴ So, accompanied by Connecticut highway officials and other members of the Roadside Development Bureau, Chase did just that; he made extended site inspections, taking photographs, and soliciting "expert advice from those best qualified to discuss parkway landscaping." According to the Bridgeport Post, upon returning to Connecticut, Chase and his collaborators used the information they gathered to determine "what general principles should be followed in beautifying the highway after the work of construction was completed."⁵

Not surprisingly, the "general principles" that Chase adopted for the Merritt's landscape were

¹ Edward C. Scofield, "State Retains Natural Beauty in Landscaping Parkway," Bridgeport Post, 25 August 1940, p. 2 (2).

² W. Thayer Chase, interview with Catherine Lynn and Christopher Wigren, 14 November 1990.

³ W. Thayer Chase, interview with Catherine Lynn, 17 October 1990.

⁴ Sidney S. Kennedy, "The Importance of Landscape Treatment in Highway Development," American City (September 1934), 65.

⁵ Scofield, 2.

quite similar to those espoused by the designers of New York's parkways. Too often, landscape architects complained, the roadway and the right-of-way were treated as separate and unrelated elements that gave the highway an incongruous, un-unified, and artificial appearance.⁶ In New York, designer Gilmore Clarke had skillfully avoided this by carefully blending the roadway and the right-of-way into "the normal landscape of the region," or in more poetic terms, by making them "harmonize with the landscape as if they had sprung from the soil."⁷ With this principle as a guide, Chase determined that his landscape would be as natural as possible. By discovering what distinctive qualities the right-of-way possessed naturally, Chase could make his design express and reinforce them. Thus, Chase's design for the Merritt reflected fully the rugged, hilly character of the Fairfield County countryside through which the parkway passed. Of course, roadway-landscape harmony was the ultimate goal of all parkway landscaping. The real problem facing designers like Chase was *how* to accomplish such a goal--especially in the face of utilitarian requirements stipulating, in Connecticut at least, that harmony be achieved "in the most economical manner possible with minimum requirements for maintenance after completion."⁸

Chase dealt with this problem through a dual program of preservation and restoration, both of which were widely discussed in highway landscaping circles of the 1930s. The Federal Bureau of Public Roads, which promoted this type of landscape program, defined preservation as "protecting and enhancing the existing growth of trees and other native plants," and saw restoration as "removing the raw appearance of new construction."⁹ Chase's landscape program clearly followed the bureau's definition:

The main objective [was] to assist nature in hiding the scars of construction and to supplement, where necessary, native plant life already present.¹⁰

In retrospect, Chase summarized his agenda more simply: "My aim was to heal the landscape, so Dame Nature could pull it all together in time."¹¹

Following roadside development precepts, the actual site planning for the Merritt Parkway landscape should have begun well in advance of the start of construction. Ideally, the landscape architect, in collaboration with the highway engineer, should have conducted preliminary surveys of the right-of-way to determine the "most desirable" location and alignment.¹² Landscape architects, who claimed they were trained to see the design possibilities of location and alignment, often argued that they were better qualified than engineers to fit the roadway properly into the surrounding countryside.¹³ Those involved

⁶ See, for example, Arthur Nichols, "Landscape Design in Highway Development," Landscape Architecture 30 (April 1940): 116.

⁷ John Nolen and Henry V. Hubbard, Parkways and Land Values, Harvard City Planning Studies, XI (Cambridge: Harvard University Press, 1937), 81; Wilbur H. Simonson, "Roadside Planting," Landscape Architecture 26 (July 1936): 174.

⁸ Manual of the Bureau of Roadside Development (Hartford: State Highway Department, 1945), 25.

⁹ Wilbur H. Simonson, "Planning for Roadside Improvement," Landscape Architecture 23 (July 1933): 248.

¹⁰ Warren M. Creamer, "Merritt Parkway," Connecticut Society of Civil Engineers Annual 10 (1936): 109.

¹¹ W. Thayer Chase, "Recollections," New Canaan Historical Society Annual 11 (1990-91), 1.

¹² Wilbur H. Simonson and R. E. Royall, "Roadside Improvement," Landscape Architecture 24 (July 1934): 203.

¹³ "Roadside Development: Some Guiding Principles," Better Roads (February 1934), 21.

in highway design complained that regardless of a site's topographical realities, engineers would inevitably lay out the road as a series of long railroad-like tangents. Landscape architects, by contrast, would lay out the road as a progression of sweeping curves and shorter tangents--an "organic" approach that was sensitive to the terrain, be it rolling, flat, or rocky.¹⁴ Such was the case in Westchester County, for example, where highway engineer Jay Downer deferred to landscape architect Gilmore Clarke's judgement to design "pleasing alignments" for county parkways.¹⁵ Though the Bridgeport Post claimed that engineers and landscape architects did "inspect the entire length of the right-of-way" together, by the time landscape architects began their designs for the Merritt, the parkway's alignment was already determined and construction of the roadway was well underway, if not completed, along many sections.¹⁶

Since work on the Merritt was advancing from both ends of the parkway, highway department landscape architects found that construction had disturbed existing conditions along the entire route to varying degrees. For example, along some sections of the parkway the right-of-way was completely cleared, grading and paving was underway, and bridge construction had commenced, while on other sections not a single tree had been removed, cuts and fills were just beginning, and grade separations were not even planned. Because these disparate conditions were less than ideal for planning a single, grand landscaping scheme, landscape architect Chase was forced to adopt a piecemeal approach--designing the landscape section by section, trying to stay one step ahead of the work crews, but usually finding himself several steps behind. Actually, some landscape architects argued that such piecemeal designing was in fact the best way to approach roadside landscaping:

The secret success in designing a planting plan for a highway lies not in forming a complete design within the right-of-way, but rather in the arrangement of individual plantings so that the highway becomes a part of the natural landscape.¹⁷

Following guidelines outlined in the highway department's Manual of the Bureau of Roadside Development, as well as numerous contemporary articles, Chase began his landscape design with a comprehensive inspection of the parkway's right-of-way. Beginning at the Trumbull end of the parkway, he noted unusual physiographic conditions, the topography of the roadsides and the surrounding territory, and the predominant species of trees and other vegetation.¹⁸ After studying, in his own words, "the natural growth and character of the surrounding land," Chase made notes, thumbnail sketches, and preliminary drawings on 24" x 36" plans of the roadways prepared by highway engineers.¹⁹ The drawings Chase used in the field most often were the 40-scale blueprints that detailed the right-of-way,

¹⁴ Nichols, "Landscape Design," 118.

¹⁵ Gilmore D. Clarke, "The Parkway Idea," in The Highway and the Landscape, ed. Brewster Snow (New Brunswick, NJ: Rutgers University Press, 1959), 55; see also Jay Downer, "Principles of Westchester's Parkway System," Civil Engineering 4 (February 1934): 86.

¹⁶ Scofield, 2. See Chapter 10 for a discussion of the layout of the Merritt, and Chapter 6 for Gilmore Clarke's criticism of it.

¹⁷ F. H. Brant, "Planting as a Part of Roadside Improvement," Better Roads (October 1934), 25-26.

¹⁸ See Manual of the Bureau of Roadside Development, 27; "A Permanent Policy of Roadside Improvement: Improved Planning and Planting of Highways," Landscape Architecture 26 (January 1936): 83.

¹⁹ Chase, "Recollections," 1.

the base line, and the location of adjacent property and the profile and cross-section blueprints, which indicated original and proposed elevations and grades, respectively.²⁰ After following the contractors for more than a year from one end of the parkway to the other, Chase's field notes included numerous sketches of the "lay of the land" and what vegetation the contractors had left.²¹ With bureau instructions, Chase recorded all data concerning existing trees, including definite locations, sizes of trunks, and branch spreads. Ideally, this data was used to identify individual trees, tree groups, or shrubs that could be salvaged and conserved for later use on the parkway, rather than to project simply what should be cut down and destroyed in the course of construction. Chase's field procedure conformed closely to that advocated by Wilbur Simonson, head of the Federal Bureau of Public Roads. Simonson urged landscape architects to base their designs on standard engineering plans--100-scale plans for minor roadside improvements, and 50-scale plans for "comprehensive improvements" such as landscaping a newly constructed road.²² Simonson also recommended making field notes directly on the engineering plans, as Chase himself did.

Chase used the information gathered during his field investigations to work out planting schemes and to prepare complete landscape plans and specifications. According to the roadside-development manual, these plans did not have to be "detailed drawings" because "field notes may suffice as a guide."²³ Such instructions were in direct contrast to the prevailing attitude of roadside-development advocates who believed that precisely detailed plans should be prepared prior to any construction work, particularly in the case of a new highway or parkway. Writing in Landscape Architecture, designer Richard Schermerhorn argued that properly prepared landscape plans, specifying exact tree and shrub placement, were a decisive step in ending the "neglect of roadside aesthetics."²⁴ Highway authority Lawrence Hewes likewise favored detailed landscape plans--ones that indicated not only tree placement, but the dimensions of root balls and tree pits, the exact amount of backfill material needed, and explicit instructions for plant handling.²⁵ Such detailed plans had been used with great success for parkways in Westchester County and New York City. There, after complete 50-scale topographical plans had been prepared with 1' contours, individual tree locations, rock outcrops, and all structures, survey sheets were produced at 100-scale. These sheets provided a "ground picture" that the landscape architect used to develop a general design. The general design was then divided into individual units and detailed drawings and planting layouts were worked up at both 50-scale and 20-scale versions.²⁶

The level of detail on Chase's final landscaping plans for the Merritt seems to have been somewhere between that recommended by his own bureau and that recommended by national roadside-development experts. Chase's plans consisted of planting layouts superimposed onto black-and-white

²⁰ Chase, "The Merritt Parkway: Planned with a Purpose," undated handwritten manuscript in collection of W. Thayer Chase, p. 2.

²¹ Chase, 1990.

²² Simonson and Royall, 204.

²³ Manual of the Bureau of Roadside Development, 25.

²⁴ Richard Schermerhorn, Jr., "The Neglect of Esthetics in the Planning of Rural Highways," Landscape Architecture 23 (October 1932):45.

²⁵ Lawrence Hlsley Hewes, American Highway Practice, Vol. 1 (New York: John Wiley & Sons, Inc., 1942), 237.

²⁶ Francis Cormier, "Some New York City Parks and Parkways," Landscape Architecture 24 (April 1939): 125.

prints of the engineering drawings he had used in the field.²⁷ He rejected blueprints for the final plans because he believed that the layouts were clearer on the black and whites and hence would be better interpreted on site. Plant material was designated on the plans as 1/2" circles with an inscribed cross. Location was indicated by an approximate distance to the right or left of predetermined "stations" located every 50' on the parkway's base line. The tree names were placed adjacent to each circle, along with the required height for coniferous trees like pines, cedars, or hemlocks or the required caliper for deciduous trees like oaks, maples, ashes, gums, or willows.²⁸

Once his designs were on paper, Chase decided to test his planting layouts to see how they would translate into the actual landscape. To do this he constructed a model at the Trumbull field office of one small section of the parkway right-of-way. The model included a miniature rock ledge planted with small cedar trees, a median strip planted with trees and shrubs, and both traffic lanes with toy cars provided for scale.²⁹ According to Landscape Architecture, such models were often used in highway landscaping because they gave the designer a means "for the definite and accurate checking" of both general conceptions and details.³⁰ In addition, prior to the start of planting, Chase's model enabled him to show his supervisor, Earl Wood, how a finished section of the parkway would look.

Since Chase prepared all landscape specifications, he was called upon to study proposals submitted by contractors that included any work related to the landscaping. Though for the most part the landscape was not designed when construction contracts were prepared, occasionally provisions for it were made prior to construction, likely at Chase's instigation. Ideally, as Wilbur Simonson often pointed out, much of the foundation work necessary for landscaping--such as conserving trees and topsoil, and proper filling, cutting, and grading--could be included in the original construction contract. This not only obviated the need for a separate landscape contract, it also saved considerable money.³¹ According to a 1931 study of the highway department, the inclusion of landscaping items on construction contracts--usually without additional cost--was standard practice whenever possible to prepare landscape plans "before the actual work of constructing the road is started."³² When foundation landscaping work was not included in the contract, it was sometimes necessary to re-do the contracted work to accommodate the landscaping. This was frequently the case on the Merritt, with roadside-development crews recutting

²⁷ The final landscape plans for the Merritt Parkway could not be located and likely are no longer extant. According to Chase, the plans were left with parkway engineers after he finished with them. Assuming the plans survived the parkway's completion, they may have been destroyed twenty years later--per department policy--or were discarded in the early 1970s when all landscaping work was transferred to the newly organized ConnDOT division of environmental planning.

²⁸ Information about the final landscaping plans is taken from Chase, "Planned with a Purpose," 5.

²⁹ Chase, "Recollections," 6.

³⁰ Albert C. Rose, "Landscape Construction Notes: The Models of the Mount Vernon Memorial Highway," Landscape Architecture 23 (October 1932): 61.

³¹ Simonson and Royall, 203.

³² Griffenhagen & Associates, Connecticut State Highway Department: A Report on the Organization and Procedure of the Department (Hartford: State Highway Department, 1931), 8.

slopes and regrading embankments because contractors had completed them to engineering, not landscaping, specifications.

Planting Process

Since his goal was to make the Merritt's landscape as natural as possible, Thayer Chase based his planting schemes predominantly on stock native to Connecticut in general, and Fairfield County in particular. He especially favored plants already growing in the right-of-way or in adjoining woods and fields, which he had located during extensive field studies. These studies indicated the appropriateness of a wide variety of native vegetation including, as the New York Times recounted: oak, hemlock, maple, bayberry, mountain laurel, sweet fern, red cedar, and gray birch.³³ Chase's own Bureau of Roadside Development approved of the use of native trees and shrubs for highway landscaping because they were both beautiful and hardy, easy to harmonize with their surroundings and quick to adapt to local soil and weather conditions.³⁴ Roadside-development practitioners in general favored native plants over "foreign" or "exotic" ones. Guidelines published in Landscape Architecture stated that highway planting should not be a "horticultural assertion of the power of man" to assemble species from the "far corners of the earth," and concluded that "botanical garden collections should be avoided like the plague."³⁵ If non-native plants were used at all it must be with discretion. According to contemporary reports, the only non-native plant on the Merritt was Hall's Japanese honeysuckle, which Chase used only because of its ability to bind soil on steep slopes.³⁶

Once Chase finished his landscape plans, he tallied up the proposed plants, native and otherwise, and prepared lists that included botanical name, common name, needed quantity, and required height. With these plant lists as a reference, the bureau sought and obtained in excess of 70,000 trees and shrubs from a combination of local sources--the right-of-way itself, other wild sites, or nurseries. Trees and shrubs in the right-of-way, after being marked by Chase and his workers, were saved from the path of the concrete roadways by transplanting them elsewhere along the right-of-way or off-site to temporary nurseries. Conserved plants were carefully maintained until they could be transplanted once again to a permanent place in the landscape. This native plant material, even when transplanted, substantially enhanced the landscape, giving the appearance of age and maturity. The Merritt also utilized plant stock conserved from other sites, including state-owned wild lands and highway rights-of-way. As the use of native plants was a highway department standard, the Bureau of Roadside Development regularly collected quality stock by canvassing woods, fields, or rights-of-way slated for development. Obviously, however, only a limited supply of plants could be obtained this way without completely obliterating the wild stock.

In response to this problem, the highway department established its own nurseries and stockyards, a practice that was not unusual. In neighboring Westchester County, the park commission also maintained nurseries for landscaping its numerous parks and parkways. At state nurseries in Putnam, Ellington, Wilton, Wethersfield and Essex, the highway department maintained and conserved plants,

³³ George M. Mathieu, "Merritt Parkway Aids Drivers," New York Times, 26 June 1938, p. 1 (10).

³⁴ Hans A. Bauer, Highway Landscaping in Connecticut (reprint, Connecticut Society of Civil Engineers, 1930), 65.

³⁵ "Permanent Policy of Roadside Improvement," 79.

³⁶ Scofield, 2.

stored surplus plants purchased for highway projects and, most important, cultivated its own stock of native plants. There were advantages to nursery-cultivated trees and shrubs. According to Simonson and Royall, they produced better root and plant growth and, as a result, tended to develop more rapidly with a higher rate of survival than wild stock.³⁷

During the 1930s, an estimated 20 percent of the approximately 40,000 shade trees, flowering trees, evergreens, shrubs, and flowers at these nurseries was native collected plant material, conserved ahead of highway construction or donated to the state by "generous landowners" who wanted to rid their lands of unneeded plants.³⁸ The remaining 80 percent of the stock was purchased "at bargain prices from commercial nurseries" because of plant surpluses. According to Chase, surplus stock was utilized on the Merritt because several nurseries were going out of business concurrent with the parkway's landscaping, and plant inspector Russ Barnes was able to obtain "many good-sized trees 'for a song.'"³⁹

Because of the scale of the Merritt, state nurseries could not possibly supply all the needed plants. It was therefore necessary to rely on commercial nurseries to provide the rest of the plant stock, including 21,853 additional trees. Like any other highway material, such as asphalt or cement, additional plants and planting materials were purchased through competitive bidding, which was supervised by Russ Barnes. Once contracted materials were purchased, Barnes inspected all delivered stock to see that it met with state specifications. As Chase recalls, careful inspection was necessary because "you had to be sure what you were getting."⁴⁰ Trees, shrubs, and ground covers purchased through contract included pine, hemlock, cedar, maple, oaks, dogwood, elm, sweetgum, beech, locust, hornbeam, ash, tulip, rhododendron, Boston ivy, bittersweet, pachysandra, and nearly 50,000 mountain laurel.

In preparation for the delivery of plant materials to the construction site, Chase and an assistant walked the right-of-way to locate the planned position of each tree or shrub. Using the black-and-white landscaping plans as a guide, they marked the position with a wood stake labeled with the tree name and height. Plants were delivered during one of Connecticut's two major planting seasons, in the spring from mid March to the end of May, and in the fall from mid August until the ground froze. According to Chase, it was not uncommon to have several large flatbed trucks filled with plants arrive at the construction site daily during planting season.⁴¹ The plants arrived balled and burlapped, and were unloaded at the edge of the parkway as close as possible to their staked sites. State work forces from the Bureau of Roadside Development then moved them into their exact positions.

The planting process was fairly simple. Planting holes were dug by hand with pick and shovel to a size somewhat larger than the root ball's diameter. The burlap was rolled down and loam was placed over the ball, which was then heeled down and covered with mulch. A lip of earth was built up around the base of the tree to collect rain water, though in very dry weather work crews watered them. Finally,

³⁷ Simonson and Royall, 207.

³⁸ Seven Years Along Connecticut Highways, 1927-1934 (Hartford: State Highway Department, 1934), 19.

³⁹ Chase, "Recollections," 3.

⁴⁰ Chase, 1990.

⁴¹ Chase, "Planned With a Purpose," 5.

the tree was guy wired so it could withstand Connecticut winds before its root system was strong.⁴² The trees held up quite well in Connecticut's harsh weather. According to Chase, they were "exceptionally good material" with some height and several years' growth.⁴³ Typically, planting followed the completion of construction of a given segment of the parkways. Large trees were planted first, followed by small trees and large shrubs. Small shrubs and vines were the last to be planted. To deal with the variety of landscaping challenges presented by the Merritt Parkway, Thayer Chase devised a number of design strategies that he described as "simple but effective."⁴⁴ Used repeatedly on the entire length of the parkway, these strategies quickly became formulaic, but rarely became stale.

Most of the planting arrangements that Chase designed for the Merritt landscape could be characterized as naturalistic, with the natural surroundings dictating the type of planting best adapted to the setting. For Chase, this design system was easy because "Fairfield County was so verdant, so good to work with, the areas all had good vegetation."⁴⁵ Basically, his planting schemes were intended to perpetuate the existing characteristics of the landscape. For example, if the road passed through densely treed areas, open fields, or marshes, Chase would plant it appropriately with evergreens, wildflowers, or willows and red maples, respectively.

Following departmental roadside-development guidelines, Chase usually chose one of four practical types of planting, most often the informal and random planting schemes. For informal schemes, small masses or clumps of between one and five trees were placed at irregular intervals in the landscape. Such groups were, of course, well suited to the rolling country through which the Merritt passed, and they blended in well with the existing vegetation. According to Wilbur Simonson, informal planting offered "the best means for creating a unified impression in general fitness and scale with the countryside."⁴⁶ Chase used informal planting to great effect at parkway interchanges (CT-63-98). The gently sloping lawns enclosed within the perimeters of the traffic loops offered Chase a virtual *tabula rasa* to create any kind of naturalistic grouping he wished. In such instances, of course, the roadside-development manual sounded a note of caution:

While the location of trees and shrubs is more or less arbitrary, depending upon the inclination of the landscape designer, adequate sight line must always be considered and adhered to in accordance with the standards of the Highway Department.⁴⁷

Random, or staggered, planting schemes were especially suited to roads with wide rights-of-way like the Merritt. Trees were placed consecutively along the roadside and median but at unequal distances from the base line. Such placement not only broke up the monotony of driving a road lined with "soldierly appearing rows" of trees, it also enhanced the naturalism of the landscape, giving the

⁴² Chase, "Planned With a Purpose," 6.

⁴³ Chase, 1990.

⁴⁴ Chase, "Planned with a Purpose," 4.

⁴⁵ Chase, 1990.

⁴⁶ Simonson, "Roadside Planting," 174.

⁴⁷ Manual of the Bureau of Roadside Development, 29.

appearance that the trees had survived a previous selective thinning process (CT-63-87).⁴⁸

Chase generally avoided formal planting arrangements because of the ambiance of artificiality that accompanied them. Occasionally, however he did find formal schemes useful, especially to designate locations, such as the shrubs that originally flanked the service-station flagpoles.

In a few places along the parkway Chase used screen planting with conifers to shield from view "unsightly" buildings beyond the right-of-way. Evergreen trees varying in height from 4' to 12' were planted in irregular groups approximately 8' to 15' from each other. When the trees matured fully they would resemble a naturally occurring grove that completely occluded all structures from the parkway.⁴⁹ Screen planting was also used to outline curves in the road's alignment in the same way that directional signs are used today. Upon perceiving a dense screen of trees ahead, motorists would supposedly slow down subconsciously while passing them, thus ensuring safe movement through curves. One newspaper reported that safety was greatly increased by these "plant directional guides that serve to delineate dangerous curves ahead."⁵⁰

As trees were the dominant unit of his planting schemes, Chase was keenly aware of their impact on the Merritt's landscape. Regardless of the planting program, he always used trees of varying heights--categorized as small, medium, and large--to increase the landscape's naturalistic appearance.⁵¹ While the bureau generally favored slow-growing long-lived species of trees that required less maintenance, Chase nonetheless utilized faster growing, short-lived species at numerous locations on the parkway. To safeguard the copious mountain laurel and hardwoods that lined the parkway, Chase planted cedars, birches, and black birches. The quick growth of these trees would ensure proper shading for the less mature plants. Later, when hardwoods like oaks had fully developed, they would shade the laurel and the other trees would be removed.

Bridges

In "Planting as a Part of Roadside Improvement," F. H. Brant wrote that "bridges and bridge approaches furnish opportunities for extensive planting treatment."⁵² This was particularly true on the Merritt, not only because there were so many bridges to be landscaped, but because their landscaping had to take into account so many site-specific and stylistic considerations. According to the roadside-development manual, the problem of bridge landscaping was twofold:

The treatment case calls for emphasizing the beauty of the dominant architectural lines of the structure, at the same time blending it into the surrounding terrain.⁵³

⁴⁸ Seven Years Along Connecticut Highways, 31.

⁴⁹ Scofield, 2; Seven Years Along Connecticut Highways, 33.

⁵⁰ No citation available. Untitled and undated clipping in collection of W. Thayer Chase.

⁵¹ C. G. Nichols, "The Merritt Parkway," Roads and Streets (March 1940), 69.

⁵² Brant, 26.

⁵³ Manual of the Bureau of Roadside Development, 30.

In planning his bridge treatments, Chase carefully studied the construction drawings of both overpasses and underpasses, noting which architectural details and lines should be stressed and which should be played down. Generally, he tried to soften the lines of the bridge through his plantings without sacrificing clear sight lines, the end result usually being a landscape treatment more formal than other places on the parkway.⁵⁴ Chase's effort to keep sightlines clear is evident in the original landscaping of the Lake Avenue Bridge in Greenwich, where the median was planted with a low-lying shrub that, no matter how large or fast it grew, could not possibly interfere with the driver's view of the underpass. At the Stanwich Road Bridge in Greenwich, Chase dealt with sight lines by discontinuing median planting well in advance of the bridge.

At the Wire Mill Road Bridge in Stamford and the Darien Road Bridge in New Canaan, the planting was quite restrained, limited to a few conifers asymmetrically disposed before the wingwalls. According to one contemporary account, the conifers were intended to completely screen out the bridge abutments within a few years of their planting, so that motorists would not notice them at all.⁵⁵ If this was true, then Chase's landscaping program for the bridges was at odds with Dunkelberger's architectural program, the latter having consciously varied the design of each abutment specifically to make them both an interesting and integral part of the motorists' experience of the parkway.

Medians

Landscaping the Merritt's median presented several problems. Though the median divided traffic physically, it had to unite visually the entire right-of-way development--otherwise the parkway would appear as two separate roads. Acknowledging this problem in "Landscape Design and Highway Development," writer Arthur Nichols recommended that "simplicity of planting" dominate median treatment.⁵⁶ The second problem was more utilitarian. The median simply could not be planted in numerous places due to the numerous pipes and drains running below it.⁵⁷ Planting above pipes was dangerous because plant roots could interfere with the drainage system of the parkway.

Those stretches of the median that could not be planted with trees and shrubs were sodded, and in some places planted with honeysuckle, which would cover the median with a dense mat but not drop deep roots. Where the median was wide enough, Chase planted informal groupings of mixed trees and shrubs. By alternating the height and caliper of the plants in these groupings Chase created a lively and varied effect that reflected the treatment of flanking buffer strips and eliminated visual monotony. On narrower portions of the median Chase resorted to essentially straight rows, but here he dramatically varied tree height by incorporating existing trees into his scheme. If his plans had been properly followed, the root systems of existing trees would have survive road grading and paving, and would present mature growth for the median treatment. These larger trees in particular enabled the median landscaping to serve the functional purpose of reducing the glare of headlights from oncoming traffic,

⁵⁴ W. Thayer Chase, interview by Gabrielle Esperdy and Joanne McAllister-Hewlings, 3 June 1992.

⁵⁵ Scofield, 2.

⁵⁶ Nichols, "Landscape Design," 116.

⁵⁷ Scofield, 2.

especially on curves.⁵⁸ Though Chase believed the spaces between existing trees could be filled in with laurel to act as a glare barrier immediately upon completion, it was only after several years growth that the median landscaping even partially served this purpose. By 1949, the highway department claimed that median planting had "minimized and often entirely eliminated the blazing lights of oncoming cars," concluding that what had "practical value by night became beauty by day."⁵⁹

Existing Buffer Vegetation

Through selective thinning and supplementation of existing vegetation on the parkway's buffer flanks, Chase was able to heighten the naturalistic effect of the landscaping without giving the appearance of artificiality. Often, very large or spectacular trees were singled out for special treatment, as in the case of the Lapham Oak in New Canaan. Construction photographs taken before and after the erection of the Darien Road Bridge show that the existing vegetation of the bridge approach, including the oak, was left virtually intact, except for the addition of minimal median planting. Several trees on Darien Road itself were removed to silhouette the Lapham Oak against the horizon line.

In naturally occurring groves on the buffer strips, selective thinning was necessary foremost to preserve proper growth. Where trees had grown too close to each other, the undesirable ones were removed, allowing those remaining to "grow to maturity under more ideal conditions."⁶⁰ In addition to this judicious thinning, buffer strips were generally cleaned up and their appearance improved by the removal of stumps, dead trees, decayed limbs, underbrush, and other natural debris.

Chase often enhanced existing vegetation by adding additional trees or shrubs of the same or a complementary species. At several locations along the parkway where steep cuts were made through cedar hillsides, Chase thought it "logical and only natural" to continue the cedars down the new slope.⁶¹ He also planted cedars in the median and on the slope opposite, and supplemented them with the addition of dogwoods and birches. Elsewhere he devised a similar treatment for a natural stand of young red oaks, introducing laurel, dogwood, and hemlock. The hemlocks were scattered informally but strategically throughout the stand to provide winter color after the oaks lost their foliage.⁶²

Rock Cuts

The raw rock cuts left on the parkway after construction crews blasted through Fairfield County's tough ledges were perhaps the most noticeable scars of construction--the most visible signs that nature had been disturbed. Wherever Chase encountered exposed rock he immediately planned for landscaping, but often the contractors would have covered over the rock cuts with topsoil as a preliminary "healing" measure. In these cases, Chase had to first find the rock before determining the proper planting for it, usually dependent on how much space was available for roots. Most often Chase planted rock ledges with black birches that thrived in the rocky environment and were also fast growing. Noting the ability

⁵⁸ "Aids Drivers," 1.

⁵⁹ "Official Map of Connecticut Highways" (Hartford: State Highway Department, 1949).

⁶⁰ Creamer, Connecticut Society of Civil Engineers Annual, 109.

⁶¹ Chase, "Planned with a Purpose," 3.

⁶² Scofield, 2.

of the birches to cloak construction scars, Chase called the trees "nature's own way of clothing herself."⁶³ Sometimes small shrubs or vines were the only cover that would take hold in the rocks to hide the raw appearance of the cuts (CT-63-92). Occasionally, before such plants had matured, Chase would conceal rock ledges from the approaching motorist by screen planting. The ledges would then only become visible as the motorist drove past.⁶⁴ In a few instances, there was no real need for plantings to blend rock cuts into the surrounding landscape. At the approach to the Guinea Road Bridge in Stamford, for example, the rustic stone bridge that seems to spring from live rock on either side of the parkway makes the cuts appear more as natural rock outcroppings than construction scars.

Slope Treatment

Because the construction of the Merritt Parkway required such extensive grading, slope treatment was a significant part of Chase's landscaping strategy. Proper slope treatment ensured a stabilized embankment, thus preventing washouts and erosion. On raw and unstabilized slopes, soil could wash away during heavy rainfall usually directly into the parkway-drainage system causing serious clogging. Furthermore, if such soil loss went unchecked, the slope would continue to erode to the point of complete rebuilding. Proper slope treatment would, therefore, reduce future maintenance needs, resulting in considerable savings of both time and money.

The first step in all slope landscaping was mucking. Muck conserved from other sites on the parkway was spread over graded slopes as a base for subsequent treatment. According to roadside expert Lawrence Hewes, the muck provided both proper footings and proper nourishment for young plants.⁶⁵ Next, slopes were topped with soil and finally covered with some sort of vegetation to hold the soil in place. Though Chase disliked it because it "ran all over the trees," he often planted honeysuckle on slopes because of its ability to check the flow of water runoff and at the same time stabilize soil.⁶⁶ Running along the ground and taking root every few feet, the mature honeysuckle provided a solid mass of foliage that was practical and visually pleasing. Other shrubs were used on slopes in the same way that honeysuckle was. At the Greenwich-Stamford town line, for example, the slopes were planted with sweet fern, bayberry, and sumac. According to Warren Creamer, rambling vines and trees were also planted on slopes to prevent soil erosion.⁶⁷ Of course, complete landscape treatment also served to beautify the parkway's roadsides by naturalistically blending raw slopes into the surroundings.

Cuts and Fills

Because of the extensive cuts and fills along the Merritt route, the outer edges of the parkway's buffer had been considerably disfigured during construction. When the grading was completed prior to landscaping, the transition from roadway to side bank was, in most cases, sharp and abrupt. If the roadway was to harmonize with the surrounding natural topography, this transition had to be made at least smoother, if not completely imperceptible. Essentially, the problem was to modify the parkway's

⁶³ Chase, "Planned with a Purpose," 4.

⁶⁴ Chase, 1992.

⁶⁵ Hewes, 239-41.

⁶⁶ Chase, 1990.

⁶⁷ Creamer, Connecticut Society of Civil Engineers Annual, 109.

cross-section, better fitting it into the landscape through subtle grading and planting.

Most roadside-development experts agreed that careful grading, designed by a landscape architect and not an engineer, was an effective means of creating a natural appearance at cuts and fills.⁶⁸ On the Merritt, Chase regraded the cuts and fills left by construction crews using a method that had been employed to great effect on Westchester County parkways.⁶⁹ By widening and flattening cuts, and rounding out fills to a gentle curvature, Chase created a contour that shifted almost seamlessly from cut to fill and from roadway to roadside. He covered these areas with informal planting groups that continued the natural character of the undisturbed buffer strip. He would, for example, vary tree heights according to the grade of the slopes, with the tallest trees at the base and shorter trees at the top. Gradually, the slope itself would appear to merge into the adjoining terrain and the newly planted trees would seem like the outer edge of a natural woods. Once the finished landscape matured for a few years, any remaining disjunction between the roadway and buffer strips would become less and less conspicuous.

Scenic Features

In the late 1920s, Gilmore Clarke described the landscape architect as an artist who paints pictures "trees, shrubs, vines, water, stretches of meadow, sky, and clouds."⁷⁰ Though Thayer Chase might not have described himself or his work on the Merritt Parkway in such poetic terms, the scenic features he created for the benefit of motorists can indeed be characterized pictures painted "with the aid of nature."

As the parkway originally wound through the Fairfield County countryside, each successive grade, curve, or tangent provided a new view of rolling farmlands, thick woods, lakes, bridges, and rock outcroppings (CT-63-90, 93). Such parkway views were not meant to be contemplated at length, like a picturesque scene in an eighteenth-century garden. Rather, they were intended to be perceived quickly and easily in a rapidly moving sequence by motorists travelling at the prescribed 45 mph speed limit.⁷¹

Vistas along the Merritt Parkway were either naturally occurring or created through landscaping. Naturally occurring vistas resulted from the rolling topography of Fairfield County. The promontories of the many ridges that the roadway traversed acted as scenic overlooks or vantage points from which motorists could view--if only for a fleeting moment--the surrounding countryside. One of the most commanding views originally perceived from the parkway's ridges was Long Island Sound, which could be seen in the distance on clear days from the westernmost ridges.⁷²

These natural vistas were often enhanced by landscape treatment that included flattening slopes or selectively removing planting to allow an unobstructed view. Called "trimming for pictorial effect" by the Bureau of Roadside Development, the latter method was used to not only to establish vistas open

⁶⁸ See for example, Simonson, "The Practical Side of Roadside Development," American City (June 1935), 57.

⁶⁹ Downer, 87.

⁷⁰ Gilmore D. Clarke, "The Relation of Architecture and Landscape Architecture," American Architect 133 (5 March 1928): 285.

⁷¹ Nolen and Hubbard, 115.

⁷² "Aids Drivers," 1.

to the distance, but to produce nearby scenic compositions as well.⁷³ Cutting existing growth opens up new views to the motorist that would otherwise have been blocked, including a glimpse of a river or a particularly striking stand of trees. In some locations the procedure was as simple as removing a few feet of vegetation or cutting down weeds and grass. In other areas, the intended view was revealed only after workers cut through extremely dense patches of undergrowth in the right-of-way.⁷⁴ Vistas and compositions were also established by adding new trees and shrubs to the landscape. Such plantings were strategically placed to act as a frame through which the motorist could view a scenic feature, be it an open hillside, rock outcropping, or even a ribbony old stone wall in the right-of-way. Occasionally, the parkway's bridges also functioned in the same way; although, of course, the view framed by a bridge was inevitably the parkway itself.

Some of the most impressive scenic features of the Merritt were not naturally occurring, but rather were artificial, having been completely created by landscape architect Thayer Chase. In 1933 Wilbur Simonson counseled landscape architects to incorporate the distinctive landscape characteristics of their regions into their work, creating scenic features through native vegetation.⁷⁵ This Thayer Chase did by planting native trees and shrubs that were calculated to produce spectacular effects in the fall and spring. The assortment of deciduous Connecticut trees that Chase placed up and down the parkway guaranteed a sequence of colored foliage from early fall until nearly the beginning of winter. In addition, he planted thousands of mountain laurels, the Connecticut state flower, whose long spring blossoming season was intended to rival that of the cherry blossoms in Washington, D.C.

Other noteworthy artificial scenery included the ponds created from gravel pits left over from excavation for fill. In Greenwich, the contours of the pit were shaped into a naturalistic irregular form and the Byram River was diverted into the pit. The surrounding grounds were then landscaped, and the whole area was called Tollgate Pond after the eponymous plaza nearby. After Tollgate Pond's completion, Warren Creamer described it as "a distinct asset to the natural beauty of the surrounding terrain."⁷⁶ Two other small lakes, at Turn-of-River in Stamford and Old Mill River in Fairfield, were created in the same manner.

Changes in the Landscape

The Merritt Parkway landscape has changed considerably since it was planted in the 1930s. Some change was, of course, anticipated. Landscape architecture is a dynamic art that, as Gilmore Clarke put it, is "ever changing with the time of day, with the seasons, and with the years."⁷⁷ What remains to be determined is exactly how much change through growth in the planted landscape Chase envisioned when he planned it.

From the open planting of the 1930s, which encouraged views into the surrounding countryside,

⁷³ Manual of the Bureau of Roadside Development, 34.

⁷⁴ Creamer, Connecticut Society of Civil Engineers Annual, 109.

⁷⁵ "Planning for Roadside Improvement," 256.

⁷⁶ Creamer, Connecticut Society of Civil Engineers Annual, 111.

⁷⁷ Clarke, "Relation of Architecture and Landscape Architecture," American Architect 133 (5 March 1928): 285.

the landscape grew into the "solid wall of greenery" by the 1950s (CT-63-106), which permitted vistas only ahead and behind, and finally into the "green tunnel" of today, which completely obscures all vistas and permits a view of only the outer edge of the buffer.⁷⁸ Contemporary aerial views make clear how dense the vegetation has become after fifty years, as do comparisons of bridge landscaping from the 1930s and today.

Maintenance, or lack thereof, has played an important role in the changes that have occurred in the landscape. Maintenance was the age-old landscaping enemy, as F. H. Brant wrote in 1934:

No matter how carefully a project is planned, and no matter how excellent the plant materials are if maintenance is not carried out in the proper manner and under expert supervision, the project cannot reach its full effectiveness.⁷⁹

The Merritt was barely completed before parkway maintenance began to suffer, due most likely to World War II cut backs in highway-department funds and work crews. In the early 1940s, for example, the weed-tree black birches that were planted to protect young oaks should have been removed once the latter were established. When they were not, and the birches grew unchecked, other vegetation was often choked out. Beginning in the 1940s, salt used on the roadway to retard ice during Connecticut's harsh winters caused significant erosion of slope bases and mulch, and killed several types of vegetation. This problem continues today.

Harsh winters also caused the destruction of significant other vegetation. By the end of winter 1976, one of the worst of the last two decades, scores of trees and shrubs, including dogwoods, had died. Lacking replacement funds, ConnDOT maintenance crews had no choice but to remove the dead trees and encourage wild growth to take their place.

Some changes to the landscape have resulted from efforts to improve parkway safety. During the 1950s, for example, a number of large trees were removed from the median because of serious accidents or to make room for guardrails. General median deterioration over the length of the parkway likely dates to this period.⁸⁰ Today, a few large trees are still intact on the medians, though nearly all ornamental shrubs are gone. For the most part, however, median landscaping consists largely of grass and occasional wildflowers.

⁷⁸ "The Parkway Unique," Boston Post, 12 October 1956, n.p.; Michael Knight, "Beauty Fading on Merritt Parkway," New York Times, 24 May 1977, n.p. Unpaginated clippings in the collection of W. Thayer Chase.

⁷⁹ Brant, 26.

⁸⁰ Chase, 1992.

Appendix A:
Merritt Parkway Construction Contracts

This list of work contracts for the construction of the Merritt Parkway is arranged by type of project and date of completion. Each entry includes date, project title, contractor, cost if available, and project identification number.

Phase I: Grading and Drainage

- 19 May 1935 Main St/Rte 25 to Huntington Tnpk, Trumbull
D. V. Frione Const. Co., \$293,261 (CONNDOT project #180-02)
- 4 Oct 1935 NY state-line to Round Hill Rd, Greenwich
Peter Mitchell Const. Co., \$264,291 (CONNDOT project #180-13)
- 8 Nov 1935 Round Hill Rd to North St, Greenwich
John Arborio Const. Co., \$300,112 (CONNDOT project #180-14)
- 15 April 1937 North St to Guinea Rd, Stamford
D. Deering Const. Co., \$322,259 (CONNDOT project #180-20)
- 1937 Guinea Rd to Wire Mill Rd, Stamford
Osborn-Barnes Const. Co. (CONNDOT project #180-31)
- 1937 Wire Mill Rd to Ponus St, New Canaan
Osborn-Barnes Const. Co. (CONNDOT project #180-32)
- 8 Oct 1937 Ponus St to South Ave/ Rte 124, New Canaan
Paul Bacco Const. Co., \$163,704 (CONNDOT project #180-46)
- 11 Aug 1937 South Ave/Rte 124 to New Canaan Rd/Rte 123, New Canaan
D. Deering Const. Co., \$159,452 (CONNDOT project #180-34)
- 19 May 1938 New Canaan Rd to West Rocks Road, Norwalk
D. Deering Const. Co., \$422,336 (CONNDOT project #180-51)
- 19 May 1938 West Rocks Rd to Newtown Turnpike, Westport
Arute Bros. Const. Co., \$245,616 (CONNDOT project #180-54)
- 15 Sept 1938 Newtown Turnpike to North Ave, Westport
Osborn-Barnes Const. Co., \$217,495 (CONNDOT project #180-55)
- 7 July 1939 North Ave to Congress St, Fairfield
Peter Mitchell Const. Co., \$291,934 (CONNDOT project #180-56)

- 3 Jan 1940 Congress St to Black Rock Turnpike, Fairfield
D. Deering Const. Co., \$297,806 (CONNDOT project #180-57)
- 30 Jan 1940 Black Rock TnPk to Main St/Rte 25, Trumbull
Osborn-Barnes Const. Co., \$355,210 (CONNDOT project #180-52)
- 9 April 1940 Huntington TnPk to Cutspring Rd, Stratford
Peter Mitchell Const. Co., \$153,786 (CONNDOT project #180-130)
- 4 Jan 1940 Cutspring Rd to Housatonic River, Stratford
Peter Mitchell Const. Co., \$276,848 (CONNDOT project #180-131)

Phase II: Bridges

- 1934 West Branch Byram River Bridge, Greenwich (HAER# CT-64)
Lee Const. Co., \$12,900 (CONNDOT project #180-11)
- 1934 White Plains Rd/Rte 127 Bridge, Trumbull (HAER# CT-122)
Mariani Const. Co., \$53,944 (CONNDOT project #180-12)
- 1935 Riversville Road Bridge, Greenwich (HAER# CT-65)
Lee Const. Co. (CONNDOT project #180-11)
- 1935 Glenville Water Co. and Brook Bridge, Greenwich (HAER# CT-66)
Peter Mitchell Const. Co., \$49,796 (CONNDOT project #180-11)
- 1935 East Branch Byram River Bridge, Greenwich (HAER# CT-67)
Peter Mitchell Const. Co., \$21,337 (CONNDOT project #180-11)
- 1935 Round Hill Rd Bridge, Greenwich (HAER# CT-68)
Peter Mitchell Const. Co., \$49,043 (CONNDOT project #180-16)
- 1935 Pequonock River Bridge, Trumbull (HAER# CT-57)
Mariani Const. Co., \$16,277 (CONNDOT project #180-17)
- 1935 Rocky Hill Rd Bridge, Trumbull (HAER# CT-56)
Mariani Const. Co., \$51,311 (CONNDOT project #180-18)
- 1936 Main St/Rte 25 Bridge, Trumbull (HAER# CT-118)
Mariani Const. Co., \$38,414 (CONNDOT project #180-19)
- 1936 Rippowam River Bridge, Stamford (HAER# CT-78)
Paul Bacco Const. Co., \$58,635 (CONNDOT project #180-24)
- 1936 Long Ridge Rd/ Rte 104 Bridge, Stamford (HAER# CT-76)
Paul Bacco Const. Co., \$34,681 (CONNDOT project #180-25)

- 1936 Perry Ave Bridge, Norwalk (HAER# CT-90)
Mariani Const. Co., \$18,522 (CONNDOT Project #180-36)
- 1937 Stanwich Rd Bridge, Greenwich (HAER# CT-72)
A.I. Savin Const. Co., \$49,076 (CONNDOT project #180-33)
- 1937 Sport Hill Rd/Rte 59 Bridge, Fairfield (HAER# CT-55)
M.A. Gammino Const. Co., \$39,005 (CONNDOT project #180-35)
- 1937 High Ridge Rd/Rte 137 Bridge, Stamford (HAER# CT-79)
Mariani Const. Co., \$49,980 (CONNDOT project #180-37)
- 1937 North St Bridge, Greenwich (HAER# CT-70)
M. A. Gammino Const. Co., \$23,042 (CONNDOT project #180-38)
- 1937 Taconic Rd Bridge, Greenwich (HAER# CT-71)
M. A. Gammino Const. Co., \$61,953 (CONNDOT project #180-39)
- 1937 Ponus Ridge Rd (formerly Ponus St) Bridge, New Canaan (HAER# CT-81)
Mariani Const. Co., \$30,522 (CONNDOT project #180-41)
- 1937 Newfield Ave Bridge, Stamford (HAER# CT-80)
Mariani Const. Co. (CONNDOT project #180-42)
- 1937 Riverbank Rd Bridge, Stamford (HAER# CT-75)
Mariani Const. Co., \$28,520 (CONNDOT project #180-43)
- 1937 Guinea Rd (formerly Rocky Craig Rd) Bridge, Stamford (HAER# CT-73)
Paul Bacco Const. Co., \$28,921 (CONNDOT project #180-45)
- 1937 Mianus River (culvert), Stamford (HAER# CT-74)
Osborn-Barnes Const. Co., \$30,001
- 1937 South Ave/Rte 124 (formerly Darien Rd/Rte 29) Bridge, New Canaan (HAER# CT-84)
D. Deering Const. Co., \$33,111 (CONNDOT project #180-50)
- 1937 Metro North Railroad (formerly New York, New Haven, and Hartford Railroad)
Bridge, New Canaan (HAER# CT-83)
Paul Bacco Const. Co., \$27,056 (CONNDOT project #180-53)
- 1937 Lapham Ave Bridge, New Canaan (HAER# CT-38)
Paul Bacco Const. Co. \$35,452 (CONNDOT project #180-59)
- 1937 White Oak Shade Rd Bridge, New Canaan (HAER# CT-85)
M.A. Gammino Const. Co. \$30,070 (CONNDOT project #180-60)

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- 1937 Marvin Ridge Road (formerly Weed Ave) Bridge, New Canaan (HAER# CT-86)
M.A. Gammino Const. Co. \$32,057 (CONNDOT project #180-61)
- 1937 Metro North Railroad/Winnipauk Railroad Bridge, Norwalk (HAER# CT-91)
Mariani Const. Co. \$42,774 (CONNDOT project #180-63)
- 1937 Norwalk River Bridge, Norwalk (HAER# CT-92)
Mariani Const. Co. \$90,915 (CONNDOT project #180-64)
- 1937 Main St/Rte 7 Bridge, Norwalk (HAER# CT-93)
C.W. Blakeslee Const. Co. (CONNDOT project #180-65)
- 1937 New Canaan Rd/Rte 123 Bridge, New Canaan (HAER# CT-87)
Mariani Const. Co. \$37,645 (CONNDOT project #180-49)
- 1938 Wire Mill Rd Bridge, Stamford (HAER# CT-77)
Paul Bacco Const. Co. \$29,238 (CONNDOT project #180-58)
- 1938 Chestnut Hill Rd/Rte 53 Bridge, Norwalk (HAER# CT-97)
Arute Bros. Const. Co. \$25,979 (CONNDOT project #180-54)
- 1938 Comstock Hill Rd (formerly Comstock Ave) Bridge, Norwalk (HAER# CT-88)
M. A. Gammino Const. Co. \$27,236 (CONNDOT project #180-62)
- 1938 West Rocks Rd Bridge, Norwalk (HAER# CT-94)
Paul Bacco Const. Co. \$33,413 (CONNDOT project #180-66)
- 1938 East Rocks Rd Bridge, Norwalk (HAER# CT-95)
Mariani Const. Co. \$27,453 (CONNDOT project #180-67)
- 1938 Grumman Ave Bridge, Norwalk (HAER# CT-96)
New Haven Const. Co. \$25,134 (CONNDOT project #180-68)
- 1938 Black Rock Turnpike/ Rte 58 Bridge, Fairfield (HAER# CT-111)
Mariani Const. Co. \$36,283 (CONNDOT project #180-82)
- 1938 Wilton Rd/Rte 33 Bridge, Westport (HAER# CT-39)
Mariani Const. Co. (CONNDOT project #180-70)
- 1938 Weston Rd/Rte 57 (formerly Danbury Rd) Bridge, Westport (HAER# CT-101)
Peter Mitchell Const. Co. \$31,294 (CONNDOT project #180-72)
- 1938 Easton Rd/Rte 136 Bridge, Westport (HAER# CT-102)
Paul Bacco Const. Co. \$36,655 (CONNDOT project #180-73)
- 1938 Cross Highway Bridge, Westport-Fairfield (HAER# CT-105)
Mariani Const. Co. \$38,140 (CONNDOT project #180-76)

- 1938 Congress St Bridge, Fairfield (HAER# CT-108)
Edward E. Bray Const. Co. \$26,352 (CONNDOT project #180-79)
- 1938 Saugatuck River Bridge, Westport (HAER# CT-99)
Mariani Const. Co. \$171,039 (CONNDOT project #180-89)
- 1938 Silvermine Ave Bridge, Norwalk (HAER# CT-89)
D. Deering Const. Co. \$19,916 (CONNDOT project #180-113)
- 1938 Silvermine River Bridge, Norwalk (HAER# CT-121)
D. Deering Const. Co. \$33,059
- 1939 North Ave Bridge, Westport (HAER# CT-103)
Peter Mitchell Const. Co. \$39,183 (CONNDOT project #180-74)
- 1939 Redding Rd Bridge, Fairfield (HAER# CT-107)
Peter Mitchell Const. Co. \$29,972 (CONNDOT project #180-78)
- 1939 Old Stamford Rd/Rte 106 (formerly Stamford Ave) Bridge,
New Canaan (HAER# CT-82)
Paul Bacco Const. Co. \$37,823 (CONNDOT project #180-40)
- 1939 Bayberry Lane Bridge, Westport (HAER# CT-104)
Peter Mitchell Const. Co. \$26,630 (CONNDOT project #180-56)
- 1939 Newtown Avenue/Turnpike Bridge, Westport (HAER# CT-98)
Louis J. Bacco Const. Co. \$31,554 (CONNDOT project #180-69)
- 1939 Burr St Bridge, Fairfield (HAER# CT-110)
D. Deering Const. Co. \$23,503 (CONNDOT project #180-81)
- 1939 Morehouse Highway Bridge, Fairfield (HAER# CT-113)
Edward E. Bray Const. Co. \$32,175 (CONNDOT project #180-83)
- 1939 Plattsville Rd (formerly Chestnut Hill Rd) Bridge, Trumbull (HAER# CT-116)
Mariani Const. Co. \$33,155 (CONNDOT project #180-86)
- 1939 Madison Ave Bridge, Trumbull (HAER# CT-117)
Mariani Const. Co. \$34,848 (CONNDOT project #180-87)
- 1939 Reservoir Rd Bridge, Trumbull (HAER# CT-120)
Mariani Const. Co. \$34,538 (CONNDOT project #180-109)
- 1940 Clinton Ave/North Clinton Ave Bridge, Westport (HAER# CT-100)
Mariani Const. Co. \$57,123 (CONNDOT project #180-71)

- 1940 Mill River Bridge, Fairfield (HAER# CT-114)
Osborn-Barnes Const. Co. \$16,497 (CONNDOT project #180-52)
- 1940 Huntington Rd Bridge, Stratford (HAER# CT-124)
Charter Oak Const. Co. \$26,050 (CONNDOT project #180-116)
- 1940 Merwins Lane Bridge, Fairfield (HAER# CT-106)
Louis J. Bacco Const. Co. \$40,297 (CONNDOT project #180-77)
- 1940 Hillside Rd Bridge, Fairfield (HAER# CT-109)
D. Deering Const. Co. \$23,492 (CONNDOT project #180-80)
- 1940 Park Ave Bridge, Fairfield (HAER# CT-115)
Mariani Const. Co. \$35,694 (CONNDOT project #180-85)
- 1940 Huntington Turnpike/Rte 108 Bridge, Trumbull (HAER# CT-126)
Mariani Const. Co. \$62,716 (CONNDOT project #180-111)
- 1940 Lake Ave Bridge, Greenwich (HAER# CT-69)
Louis J. Bacco Const. Co. \$49,635 (CONNDOT project #180-118)
- 1940 Unity Rd (formerly Trumbull Ave) Bridge, Trumbull (HAER# CT-123)
Mariani Const. Co. \$56,638 (CONNDOT project #180-119)
- 1940 Cricker Brook (culvert), Fairfield (HAER# CT-112)
Osborn-Barnes Const. Co. \$25,096 (CONNDOT project #180-136)
- 1940 Nichols-Shelton Rd Bridge, Stratford (HAER# CT-125)
Mariani Const. Co. (CONNDOT project #180-117)
- 1940 Cutspring Rd Bridge, Stratford (HAER# CT-127)
Edward E. Bray Const. Co. \$36,374 (CONNDOT project #180-140)
- 1940 James Farm Rd Bridge, Stratford (HAER# CT-129)
Brunalli Const. Co. \$25,904 (CONNDOT project #180-141)
- 1940 Main St/Rte 110 (formerly Rte 8) Bridge, Stratford (HAER# CT-130)
Mariani Const. Co., \$56,355 (CONNDOT project #180-142)
- 1941 Pumpkin Brook (culvert), Stratford (HAER# CT-128)
Peter Mitchell Const. Co., \$17,360
- 1942 Frenchtown Rd Bridge, Trumbull (HAER# CT-119)
Paul Bacco Const. Co., \$55,912 (CONNDOT project #180-179)

Phase III: Paving

- 14 Oct 1938 NY state-line to Round Hill Rd, Greenwich
A. I. Savin Const. Co., \$264,291 (CONNDOT project #180-90)
- 10 Aug 1938 Round Hill Rd to Taconic Rd, Greenwich
A. I. Savin Const. Co., \$309,326 (CONNDOT project #180-91)
- Taconic Rd to Long Ridge Rd/ Rte 104, Stamford
New Haven Const. Co., \$235,444 (CONNDOT project #180-92)
- 1938 Wire Mill Rd to Lapham Ave, New Canaan
New Haven Const. Co., \$298,739 (CONNDOT project #180-93)
- 21 Sept 1938 Comstock Hill Rd to West Rocks Rd, Norwalk
New Haven Const. Co., \$153,076 (CONNDOT project #180-95)
- 21 Sept 1938 West Rocks Rd to Newtown Turnpike, Westport
New Haven Const. Co., \$129,079 (CONNDOT project #180-96)
- 26 Sept 1938 Lapham Ave to Comstock Hill Rd, Norwalk
New Haven Const. Co., \$251,402 (CONNDOT project #180-94)
- 30 Jan 1939 Newtown Turnpike to Easton Rd/Rte 136, Westport
A. I. Savin Const. Co., \$127,734 (CONNDOT project #180-100)
- 19 Aug 1939 Easton Rd/Rte 136 to Congress St, Fairfield
A.I. Savin Const. Co., \$247,795 (CONNDOT project #180-135)
- 3 Feb 1940 Congress St to Black Rock Turnpike, Fairfield
New Haven Const. Co., \$189,251 (CONNDOT project #180-156)
- 9 Feb 1940 Black Rock Turnpike to Main St/Rte 25, Trumbull
New Haven Const. Co., \$235,187 (CONNDOT project #180-102)
- 2 Sept 1938 Main St/Rte 25 to Huntington Turnpike, Trumbull
D. V. Frione Const. Co., \$226,046 (CONNDOT project #180-103)
- 29 Oct 1940 Huntington Turnpike to Cutspring Rd, Stratford
Osborn-Barnes Const. Co., \$146,803 (CONNDOT project #180-169)
- 29 Oct 1940 Cutspring Rd to Housatonic River, Stratford
Osborn-Barnes Const. Co., \$162,556 (CONNDOT project #180-170)

Phase IV: Miscellaneous Features

Curbs

- 22 June 1942 NY state-line to Huntington Turnpike, Trumbull
L. G. DeFelice and Son, Inc., \$9,991 (CONNDOT project #180-195)
- 1942 Huntington Turnpike to Housatonic River, Stratford
(CONNDOT project #180-196)

Curb-eye Reflectors

- 14 Sept 1938 NY state-line to Long Ridge Rd/Rte 104, Stamford
Webster and Webster, Inc., \$1,520
- 11 Aug 1937 Long Ridge Rd to West Rocks Rd, Norwalk
Webster and Webster, Inc., \$750
- 1937 West Rocks Rd to North Ave, Westport
Webster and Webster., Inc, \$420 (CONNDOT project #180-144)
- 19 Aug 1940 North Ave to Main St/Rte 25, Trumbull
Webster and Webster, Inc., \$1,136
- 27 Nov 1940 Huntington Turnpike to Housatonic River, Stratford
Webster and Webster, Inc. (CONNDOT project #180-184)

Wood Guide Rails

- 4 April 1938 N.Y. State-line to Round Hill Rd, Greenwich
Webster and Webster Inc., \$15,518 (CONNDOT project #180-115)
- 15 Aug 1938 Round Hill Rd to Guinea Rd, Stamford
Webster and Webster Inc., \$23,456 (CONNDOT project #180-124)
- Wire Mill Rd to Comstock Hill Rd, Norwalk
Webster and Webster Inc., \$24,352 (CONNDOT project #180-125)
- 4 Nov 1938 Comstock Hill Rd to West Rocks Rd, Norwalk
Biral Const. Co., \$13,148 (CONNDOT 180-131)
- 23 Nov 1938 West Rocks Rd to Newtown Ave, Westport
Webster and Webster Inc., \$9,080 (CONNDOT project #180-138)
- 7 July 1939 Newtown Ave to Congress St, Fairfield
Webster and Webster Inc., \$21,833 (CONNDOT project #180-149)

- 11 Jan 1940 Congress St to Main St/Rte 25, Trumbull
Webster and Webster Inc., \$28,782 (CONNDOT project #180-164)
- 18 Oct 1940 Huntington Turnpike to Housatonic River, Stratford
Webster and Webster Inc., \$32,898 (CONNDOT project #180-180)

Stone Walls

- 1940 Greenwich
West Rock Concrete Co., \$4,094 (CONNDOT project #180-174)
- 1940 Fairfield
New Britain Trucking Co., \$2,755 (CONNDOT project #180-122)
- 1940 Binger and Botsford property, Fairfield
F. M. Santamaria Co., \$1,454 (CONNDOT project #180-129)
- 1940 Frazek property, Fairfield
Palmer and Torinelli Co., \$1,488 (CONNDOT project #180-185)

Appendix B:
Associated Merritt Parkway Bridges and Buildings

The twenty-one sheets of measured drawings produced on the Merritt Parkway are accessioned as part of HAER No. CT-63, as are 119 photographs. For more information about the individual structures affiliated with the parkway, consult the individual historical reports and the accompanying photographs. All structures are in Fairfield County, listed from west to east; cities are indicated in boldface.

Greenwich

| | |
|---------------------------------------|-----------------|
| Greenwich Service Station, northbound | HABS No. CT-131 |
| Greenwich Service Station, southbound | HABS No. CT-132 |
| West Branch Byram River Bridge | HAER No. CT-64 |
| Riversville Road Bridge | HAER No. CT-65 |
| Glenville Water Co. and Brook Bridge | HAER No. CT-66 |
| East Branch Byram River Bridge | HAER No. CT-67 |
| Round Hill Road Bridge | HAER No. CT-68 |
| Lake Avenue Bridge | HAER No. CT-69 |
| North Street Bridge | HAER No. CT-70 |
| Taconic Road Bridge | HAER No. CT-71 |
| Stanwich Road Bridge | HAER No. CT-72 |
| Visitor's Center | HAER No. CT-131 |

Stamford

| | |
|------------------------|----------------|
| Guinea Road Bridge | HAER No. CT-73 |
| Mianus River Culvert | HAER No. CT-74 |
| Riverbank Road Bridge | HAER No. CT-75 |
| Long Ridge Bridge | HAER No. CT-76 |
| Wire Mill Road Bridge | HAER No. CT-77 |
| Rippowam River Bridge | HAER No. CT-78 |
| High Ridge Road Bridge | HAER No. CT-79 |
| Newfield Avenue Bridge | HAER No. CT-80 |

New Canaan

| | |
|--|-----------------|
| Ponus Ridge Road Bridge | HAER No. CT-81 |
| Old Stamford Road Bridge | HAER No. CT-82 |
| Metro North Railroad Bridge | HAER No. CT-83 |
| Lapham Avenue Bridge | HAER No. CT-38 |
| South Avenue Bridge | HAER No. CT-84 |
| New Canaan Service Station, northbound | HABS No. CT-133 |
| New Canaan Service Station, southbound | HABS No. CT-134 |
| New Canaan Maintenance Garage, south | HABS No. CT-135 |
| White Oak Shade Road Bridge | HAER No. CT-85 |
| Marvin Road Bridge | HAER No. CT-86 |

Norwalk

| | |
|-----------------------------|-----------------|
| New Cannan Avenue Bridge | HAER No. CT-87 |
| Comstock Hill Road Bridge | HAER No. CT-88 |
| Silvermine Avenue Bridge | HAER No. CT-89 |
| Silvermine River Bridge | HAER No. CT-121 |
| Perry Avenue Bridge | HAER No. CT-90 |
| Metro North Railroad Bridge | HAER No. CT-91 |
| Norwalk River Bridge | HAER No. CT-92 |
| Main Avenue Bridge | HAER No. CT-93 |
| West Rocks Road Bridge | HAER No. CT-94 |
| East Rocks Road Bridge | HAER No. CT-95 |
| Grumman Avenue Bridge | HAER No. CT-96 |
| Chestnut Hill Road Bridge | HAER No. CT-97 |

Westport

| | |
|-------------------------|-----------------|
| Newtown Turnpike Bridge | HAER No. CT-98 |
| Wilton Road Bridge | HAER No. CT-39 |
| Saugatuck River Bridge | HAER No. CT-99 |
| Clinton Avenue Bridge | HAER No. CT-100 |
| Weston Road Bridge | HAER No. CT-101 |
| Easton Road Bridge | HAER No. CT-102 |
| North Avenue Bridge | HAER No. CT-103 |
| Bayberry Lane Bridge | HAER No. CT-104 |

Fairfield

| | |
|---------------------------------------|-----------------|
| Cross Highway Bridge | HAER No. CT-105 |
| Merwins Land Bridge | HAER No. CT-106 |
| Redding Road Bridge | HAER No. CT-107 |
| Congress Street Bridge | HAER No. CT-108 |
| Hillside Road Bridge | HAER No. CT-109 |
| Burr Street Bridge | HAER No. CT-110 |
| Black Rock Turnpike Bridge | HAER No. CT-111 |
| Cricker Brook Culvert | HAER No. CT-112 |
| Morehouse Highway Bridge | HAER No. CT-113 |
| Mill River Bridge | HAER No. CT-114 |
| Fairfield Service Station, northbound | HABS No. CT-136 |
| Fairfield Service Station, southbound | HABS No. CT-137 |
| Sport Hill Road Bridge | HAER No. CT-55 |

Trumbull

| | |
|-----------------------------|-----------------|
| Park Avenue Bridge | HAER No. CT-115 |
| Plattsville Road Bridge | HAER No. CT-116 |
| Madison Avenue Bridge | HAER No. CT-117 |
| Main Street Bridge | HAER No. CT-118 |
| Frenchtown Road Bridge | HAER No. CT-119 |
| Reservoir Road Bridge | HAER No. CT-120 |
| Rocky Hill Road Bridge | HAER No. CT-56 |
| Pequonock River Bridge | HAER No. CT-57 |
| White Plains Road Bridge | HAER No. CT-122 |
| Unity Road Bridge | HAER No. CT-123 |
| Huntington Turnpike Bridge | HAER No. CT-124 |
| Nichols-Shelton Road Bridge | HAER No. CT-125 |

Stratford

| | |
|--------------------------------------|-----------------|
| Huntington Road Bridge | HAER No. CT-126 |
| Cutspring Road Bridge | HAER No. CT-127 |
| Pumpkin Brook Culvert | HAER No. CT-128 |
| James Farm Road Bridge | HAER No. CT-129 |
| Main Street Bridge | HAER No. CT-130 |
| Toll Booth (in Boothe Memorial Park) | HABS No. CT-138 |

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These surveys give current information about rights-of-way and boundaries. The surveys could be used to determine the extent of encroachment of the Merritt's right-of-way.

Helen Binney Kitchel Scrapbooks. Greenwich: Greenwich Historical Society.

Portions of these scrapbooks are devoted exclusively to the Merritt Parkway. State Representative Kitchel began the scrapbooks in 1930, with clippings of newspaper and magazine articles pertaining to the Merritt.

Merritt Parkway Landscape Drawings. Greenwich: Nick Vasileff, Vasileff Nurseries, owner.

One of Vasileff's relatives worked for the State Highway Department in the Bureau of Roadside Development. These drawings are rumored to be original landscape drawings for the Merritt.

Minutes of the Merritt Parkway Commission, 1931-59. Hartford: State Library and Archives.

The commission minutes likely contain information about landscaping, border control, bridges, etc. The Minutes could not be located at the State Library.

Toll Plaza Collection. Stratford: Boothe Memorial Park.

Ephemeral material relating to the construction, and later dismantling, of the Greenwich and Milford toll plazas.

Uncataloged Highway Department Photographs. Hartford: State Library and Archives.

This collection includes undocumented Merritt Parkway photographs of construction, bridges, garden club plaques, etc.