

ROUTE 7/15 INTERCHANGE PROJECT
NORWALK, CONNECTICUT

DRAFT PURPOSE AND NEED STATEMENT



March 2017

Rev.

November 6, 2017

ROUTE 7/15 NORWALK PROJECT DRAFT PURPOSE AND NEED STATEMENT

PROJECT LOCATION

The proposed project is located in the northern portion of the City of Norwalk and encompasses the interchange of the Route 15 (Merritt Parkway) and Route 7; the interchange of the Merritt Parkway with Main Avenue; Main Avenue (SR 719); and Glover Avenue/Creeping Hemlock Drive in the vicinity of Main Avenue. The project area extends along the Merritt Parkway from approximately 0.5 miles west of Route 7 to approximately 0.5 miles east of Main Avenue and along Route 7 from approximately 0.5 miles south of the Merritt Parkway to approximately 0.5 miles north of the Merritt Parkway.

The design year for the proposed project is 2045. The project area is illustrated in Figure No. 1.

EXISTING TRANSPORTATION NETWORK

Route 7

Regionally, Route 7 serves as an important north-south transportation corridor in western Connecticut, connecting Interstate 84 (I-84) in Danbury and both the Merritt Parkway and Interstate 95 (I-95) in Norwalk. Route 7 is one of three limited access roadways between the Merritt Parkway and I-95 within southwestern Connecticut, with the other connectors being Route 8 in Bridgeport and the Milford Connector in Milford. Throughout the corridor, Route 7 provides essential service to residential communities and businesses in the towns of Ridgefield, Redding and Wilton as well as the cities of Danbury and Norwalk. Within and abutting the project area, Route 7 is a four-lane limited access expressway between I-95 and Grist Mill Road in Norwalk, where it intersects with the Route 7 arterial roadway to the north. The roadway that previously functioned as Route 7 between I-95 and Grist Mill Road prior to the completion of the Route 7 expressway is now called Main Avenue.

Merritt Parkway

The Merritt Parkway is approximately 37 miles long. It connects the Hutchinson River Parkway at the New York State line in Greenwich to the Wilbur Cross Parkway at the Housatonic River in Stratford. The Parkway has two travel lanes in each direction and is restricted to non-commercial use. It was listed in the National Register of Historic Places for its significance in the areas of landscape design, transportation and architecture. It was also designated as a National Scenic Byway and State Scenic Road. Therefore, the overall character of the Merritt Parkway (its form, geometry and appearance) is an intrinsic element to its significance. In the project area, the Merritt Parkway carries traffic over Perry Avenue, Route 7 and Main Avenue as well as the Norwalk River and Metro North Railroad. This portion of the Parkway includes four historic bridges that are contributing resources to the Merritt Parkway National Register listing. They are the Perry Avenue Overpass (CTDOT Bridge No. 00719), the Main Avenue Bridge (Nos. 00530A and 00530B), the Metro North Railroad Overpass (No. 00720) and the Norwalk River Overpass (No. 00721).

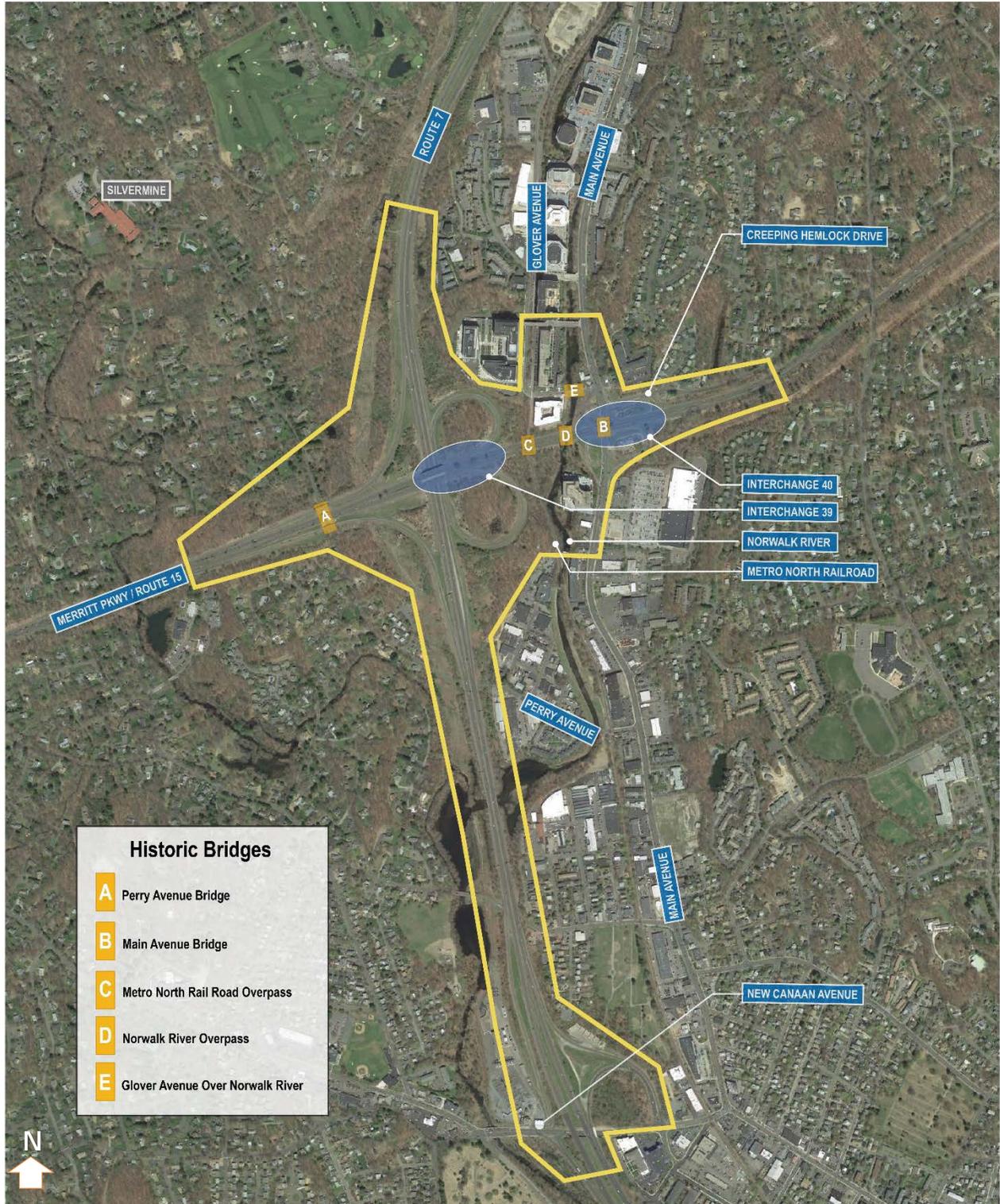


Figure No. 1: Project Area

Existing Interchanges

Interchange No. 39 provides partial connections between Route 7 and the Merritt Parkway. Connections are provided from Route 7 northbound to the Merritt Parkway southbound, from Route 7 southbound to the Merritt Parkway southbound, from the Merritt Parkway northbound to Route 7 northbound and from the Merritt Parkway northbound to Route 7 southbound. Connections between Route 7 and the Merritt Parkway to and from the north are not provided. Due to the missing connections, the Merritt Parkway southbound motorists must use the Merritt Parkway/Main Avenue interchange (Exit 40B) to access Route 7 northbound, north of Grist Mill Road. Merritt Parkway northbound motorists must use the Merritt Parkway /Main Avenue interchange (Exit 40A) to access Route 7 southbound south of Route 123/New Canaan Avenue. Similarly, motorists on Route 7 have no direct access to the Merritt Parkway northbound and must use Main Avenue to access the Parkway.

Interchange No. 40, a second nearby interchange provides connections in all directions between the Merritt Parkway and Main Avenue. This interchange is located approximately 1,500 feet east of the Route 7 and Merritt Parkway interchange and the Norwalk River.

Main Avenue

Main Avenue is a four-lane urban minor arterial which parallels Route 7 and the Norwalk River and extends north and south of the Merritt Parkway/Route 7 interchange. Connections between Route 7 and Main Avenue do not exist in the vicinity of Interchange No. 39 or Interchange No. 40. Main Avenue has two signalized intersections in proximity to Interchange No.40:

- Intersection of Creeping Hemlock Drive and Glover Avenue immediately north of the Merritt Parkway
- Intersection of Merritt View and the Shopping Center (e.g., Stop and Shop, TD Bank, etc.) south of the Merritt Parkway

Glover Avenue

The Glover Avenue Bridge (No. 04155) which carries Glover Avenue over the Norwalk River is independently eligible for listing in the National Register of Historic Places. Glover Avenue, also connects with Creeping Hemlock Drive at the signalized intersection with Main Avenue. Creeping Hemlock Drive serves the residential community east of Main Avenue.

Bike/Pedestrian/Transit Facilities

Bicycle and pedestrian facilities in the project area are limited, despite significant pedestrian activity during the weekday mid-day time period along office buildings on the west side of Main Avenue. There are no bicycle facilities in the study area, and shoulder widths are less than one foot wide on Main Avenue. Several segments of the roadway, particularly in the area around the Main Avenue and Creeping Hemlock intersection, have no sidewalks on one or both sides. Only one small roadway segment, along with Glover Avenue, is fully ADA compliant.

Main Avenue is served by both the Norwalk Transit District and the Housatonic Area Regional Transit organizations, with bus stops approximately every 1,000 feet on Main Avenue. The project area is also served by the Metro-North Railroad's Danbury branch at the Merritt 7 Station, approximately 1,500 feet away from the Main Avenue intersection with Glover Avenue and Creeping Hemlock Drive.

PROJECT PURPOSE

The purpose of the project is to improve roadway system linkage between Route 7 and the Merritt Parkway at Interchange No. 39; improve the mobility for vehicles at both the Merritt Parkway's Route 7 and Main Avenue Interchanges (No. 39 & No. 40) and improve the mobility for all users (motorists, pedestrians, and cyclists) along the immediate adjacent local roadway network (Main Avenue, Glover Avenue, and Creeping Hemlock); and improve safety in the vicinity of these interchanges.

PROJECT NEEDS

CTDOT and FHWA are undertaking the project to address deficiencies of the existing Interchanges and streets in the vicinity of the interchanges.

Roadway System Linkage

The existing Merritt Parkway and Route 7 Interchange configuration does not provide all connections between Route 7 and the Merritt Parkway. As a result, approximately 250 and 125 vehicles use the Main Avenue corridor to connect between Route 7 and the Merritt Parkway during the weekday morning and weekday evening peak hours, respectively. This is approximately 5 to 15 percent of the traffic currently using the Main Avenue corridor between CT 123 and CT 15 during either peak hour. These additional vehicles contribute to peak hour congestion along the Main Avenue corridor (LOS D/E). Providing the missing connections would allow access in all directions, eliminate the need for motorists to use Main Avenue to connect between Route 7 and the Merritt Parkway, and improve the efficiency of motorists connecting between the roadways.

Safety

The existing Main Avenue and Merritt Parkway Interchange ramps have inadequate acceleration and deceleration lanes, steep grades, sharp curves, and limited sight distance that contribute to a high number of crashes. Over a three-year period, (2012-2014) a total of 190 crashes have occurred along Main Avenue or on the Merritt Parkway in the vicinity of Interchange No. 40. Of those, 28 crashes have occurred on Main Avenue and 162 crashes have occurred on the Merritt Parkway in the vicinity of the Interchange. Over a three-year period, (2012-2014) a total of 120 crashes have occurred along Route 7 or on the Merritt Parkway in the vicinity of Interchange No. 39. Of those, 29 crashes have occurred on Route 7 and 91 crashes have occurred on the Merritt Parkway in the vicinity of the Interchange.

Mobility

Providing vehicular connections between Main Avenue and Route 7 would improve mobility for vehicles in the interchange areas. In addition, providing local road network improvements to Main Avenue, Glover Avenue, and Creeping Hemlock Drive) would improve mobility for all users (motorists, pedestrians, and cyclists) along Main Avenue and connecting roadways. Up to approximately 250 peak hour vehicles accessing the roadways from locations north or south of the project area either originate from or are connecting between portions of Route 7 and Main Avenue in the vicinity of the Merritt Parkway interchanges. Providing for pedestrian and/or bicycle access would allow connections between neighborhoods, land uses, and transit facilities

(e.g., Merritt 7 Railroad Station, bus stops) for pedestrians and bicyclists that currently do not exist.

Congestion

Main Avenue and Glover Avenue in the vicinity of Interchange No. 40, are currently experiencing heavy congestion and delays during peak hours. The intersection of Main Avenue at Glover Avenue / Creeping Hemlock Drive operates at LOS F and LOS E during both the weekday morning and weekday evening peak hours. Furthermore, certain ramps at the Merritt Parkway interchange with Main Avenue operate at LOS E or F. Improvements at the interchange and/or Main Avenue would reduce congestion and reduce delays at those intersections with the existing traffic volumes. With long term traffic growth, it is possible that congestion could continue to occur but the impacts of that congestion would be less with the Interchange/ Main Avenue improvements than it would be if the improvements are not made.

PROJECT GOALS AND OBJECTIVES

Goals and objectives that provide other factors that would be considered in the alternative analyses screening process include:

- A. Long Term Serviceability of the Affected Roadways within the Project Area:
 1. Creating opportunities for improved connections to existing and reasonably foreseeable future modes of transportation within the project area. (i.e. surface transit, Metro-North Railroad, bicycles/pedestrians, etc.)
 2. Coordinating with the City of Norwalk toward a workable solution that is compatible with city and regional initiatives.
- B. Maximize the Public Investment with the Project:
 1. Utilizing cost-effective solutions that maximize capital investment over the lifespan of the project.
 2. Reducing short term maintenance costs of the affected bridges and roadways.
 3. Minimizing the impact of construction on the traveling public and local communities.
 4. Implementing sustainable practices.
- C. Integrate the Project Roadways with the Environment and Neighborhood context:
 1. Creating a design that is consistent with the Merritt Parkway's historic and scenic character as documented in the National Register of Historic Places nomination and State Scenic Road designation, following guidelines in the *Merritt Parkway Guidelines for General Maintenance and Transportation Improvements*, *Merritt Parkway Landscape Master Plan*, and *Merritt Parkway Bridge Restoration Guide*.
 2. Preserving and restoring existing historic bridges and structures to the extent practical; designing new bridges, structures, and roadways that are consistent with the original design intent of the Parkway in character, scale, and relation to the landscape.
 3. Preserving, enhancing, and/or restoring surviving historic landscape where practical or, where the landscape has been significantly altered, creating a new landscape design that is consistent with the Parkway's original design intent; in all cases to maintain the continuous and consistent historic and scenic character of the Parkway.