Project Description

Bridge No. 00153 supports Quarry Road over Interstate 95 (I-95) in the city of Milford. The structure is located approximately 1.7 miles north of U.S. Route 1, at Mile post 0.73. The purpose of this project is to address the structural deficiencies of the bridge. The existing bridge superstructure is in poor condition (Rating = 4) and substructure is in satisfactory condition (Rating = 6).

The existing structure, originally constructed in 1958 (State Project No. 0315-0001), consists of two spans with 7 rolled steel beams at a skew angle of approximately 35 degrees with respect to the roadway. The superstructure has an overall length of approximately 172 feet and has a maximum span length of approximately 83 feet. The existing bridge is supported on two reinforced concrete abutments with in-line wingwalls, and a pier comprised of a reinforced concrete pier cap supported by four reinforced concrete pier columns. The existing bridge substructure components are all founded on spread footings.

Quarry Road is a two-lane Urban Collector with a posted speed limit of 25 mph. The bi-directional Annual Average Daily Traffic (AADT) over the bridge is 4,100 vehicles per day, according to the CTDOT Traffic Monitoring Station Viewer (AADT Year 2021). The vertical clearance beneath the bridge along the southbound side of I-95 is posted for 14 feet which does not meet the design standard of 16 feet for an existing highway bridge.

The proposed scope of work consists of replacing the existing structure in its entirety with a new two-span continuous steel multi-girder superstructure supported by new reinforced concrete abutments, wingwalls, and pier founded on spread footings. The superstructure will have an overall length of approximately 166 feet 4 inches and a maximum span length of approximately 86 feet- 2 inches. The structure will be raised to provide a minimum of 16 feet-3 inches vertical clearance for I-95 below.

The superstructure will be comprised of 7 rolled steel beams, each with a maximum depth of approximately 38 inches. The steel girders will support an 8.5 inches thick reinforced concrete deck with a waterproofing membrane and 3-inch-thick bituminous concrete wearing surface. Approach roadway work consists of full depth roadway reconstruction for approximately 200 feet to the north of the bridge and approximately 250 feet to the south of the bridge.

The proposed horizontal alignment matches the existing alignment and the vertical profile at the bridge will be raised by approximately 2 feet to provide a minimum of 16 feet-3 inches vertical clearance over I-95. The median barrier along I-95, beneath the bridge, will be replaced to accommodate construction of the new piers.

Quarry Road will be closed at the bridge site for the majority of construction. A 2.3-mile detour along Roses Mill Road and Woodmont Road will accommodate traffic for a duration of approximately 8 months. Construction is expected to require lane shifts, short term lane closures, and shoulder closures on I-95 during off-peak periods.

Aerial utilities located along Quarry Road, including electric, telecommunication, and cable facilities will need to be temporarily relocated to facilitate construction. It is anticipated that the existing watermain supported under the bridge will be removed and relocated. The watermain will be temporarily back fed during construction.

There are no environmental permits anticipated for this project.

Right-of-Way (ROW) impacts will be determined following additional investigation and coordination during design.

Construction is anticipated to begin in the spring of 2029.