Q Bridge

New Haven, CT

Project Description

The new Pearl Harbor Memorial Bridge (commonly known as Q-Bridge because it crosses the mouth of the Quinnipiac River at New Haven Harbor) was part of a $2.2 Billion effort by the Connecticut Dept. of Transportation to relieve congestion and upgrade aging infrastructure in New Haven. The bridge is part of the heavily traveled I-95 northeast corridor between New York and Boston. The original Q-Bridge was built in the late 1950's for 40,000 vehicles per day, less than a third of the 140,000 vehicles the bridge currently sees each day. The new Q-Bridge is a signature structure for the State of Connecticut and is the first extradosed bridge constructed in the United States. Each of the two bridges has two planes of stays that fan out as the bridge changes width from one end to the other. The new cast-in-place bridges can carry 5 lanes of traffic in each direction.

Owner
Connecticut DOT

Contractor
Walsh/PCL Joint Venture

Designer
URS

Our Role
McNary Bergeron & Associates provided construction engineering services including:

- Modifications to and standardization of segment details
- Integrated shop drawings for cast-in-place superstructure segments

Total Contract Value
$417 million

Timeline
2009 - 2015

Construction Method and Specifications

- cast-in-place segmental using form travelers
- multi-cell box segments that vary in width from 29.2m to 32.8m
- two extradosed bridges with 32 stays in two planes at each tower for each bridge (128 total stays)
- 157m main span, 76m backspans