The Rehabilitation of the Verrazano-Narrows Bridge (I-278)

Location: New York City, NY  
Owner: Triborough Bridge and Tunnel Authority  
Client: Tutor Perini Civil Group  
Construction Value: $235 million  
Period: 2013-2015

Project Description:
The Verrazano-Narrows Bridge is a double-decked suspension bridge that connects the boroughs of Staten Island and Brooklyn in New York City at the Narrows, the reach connecting the relatively protected upper bay with the larger lower bay. It has a central span of 4,260 feet and was the longest suspension bridge in the world at the time of its completion in 1964. The bridge supports 190,000 commuters daily who travel between Staten Island and Brooklyn on I-278.

This replacement project is a $235 million contract with the New York Metropolitan Transportation Authority (MTA) Bridges and Tunnels for the Upper Level Deck Replacement. The project involves the replacement of the existing concrete-filled steel grid deck at the upper level with a new steel orthotropic deck. Work is being completed in four main stages and includes the installation of new finger joints, a bridge barrier, bridge drainage system, orthotropic deck waterproofing, Rosphalt asphalt overlay, new sign structures, and upper and lower deck roadway lighting. As a subconsultant to Tutor Perini Corporation, HRV was awarded the inspection contract, and is performing fabrication inspection services on the Verrazano-Narrows Bridge. Items inspected at various shops include main member girders, stiffeners, web plates, flanges, stringers, welded plate girders, grid bridge deck, miscellaneous materials and galvanized coatings. All fabrication and inspection is being performed in accordance with the New York State Steel Construction manual.

HRV is responsible for providing CWI services during fabrication of structural steel including review of mill certifications, verification of weld procedures and welder qualifications, and visual weld inspection. In addition to providing CWI services, HRV also is also responsible for Nondestructive Testing inspections like magnetic particle testing (MT), ultrasonic testing (UT), and radiographic testing (RT).