

Tappan Zee Bridge Demolition

Tarrytown, NY

Project Description

The Tappan Zee Bridge is a 3.1 mile long river crossing located 25 miles north of New York City. It carries 6 lanes of traffic of I-87/I-287/New York Thruway over the Hudson River. The bridge was completed in 1955 and includes girder approach spans, underdeck steel truss approach spans, and an overhead steel truss cantilever main span. After 63 years of service, the bridge will be replaced by the New NY Bridge in 2018.

Owner

New York State Department of Transportation, New York State Thruway Authority

Contractor

Tappan Zee Constructors (Fluor, American Bridge, Traylor Bros., Granite JV)

Designer

HDR

Our Role

McB was hired by the Design Build Team to perform demolition engineering of the approach spans. The demolition sequencing was tailored to use the Left Coast Lifter so the truss spans could be lifted as entire units and set onto a barge. The typical truss spans weighed roughly 1300 Tons and were 235-250 ft long. All twenty of the approach truss spans are to be demolished in a similar fashion. The engineering work also included rigging design for the LCL as well as truss strengthening for the altered support points. Span 191 was the most difficult span due to the eccentric picking operation by the LCL due to the dredging limitations. The span was above the Metro North Rail lines and was located roughly 3 inches from the existing bridge at the closest point.

Total Contract Value

\$4 Billion +

Timeline

2016 - 2018

Construction Method and Specifications

Demolition using conventional methods and the barge mounted left coast lifter.

