

The New Tappan Zee Bridge

Tarrytown to South Nyack, NY

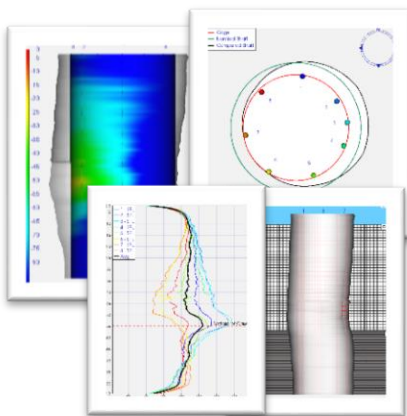


Construction of the new Tappan Zee Bridge in the background

Project Information
Owner: New York State Thruway Authority
Client: Tappan Zee Constructors, LLC & Weeks Marine, Inc.
Project Name: The New Tappan Zee Bridge
Project Cost: \$3.98 Billion
Test Types & Pile Sizes:
PDA – 36 to 42-inch Dia. Pipe Piles.
CSL – 48 to 96-inch Dia. Drilled Shaft.
TIP – 48 to 96-inch Dia. Drilled Shaft.
Completion Date: 2018

GRL Services Provided
<ul style="list-style-type: none"> ▪ Preliminary GRLWEAP Analysis ▪ Dynamic Pile Monitoring ▪ CAPWAP Analysis ▪ Crosshole Sonic Logging (CSL) ▪ Thermal integrity testing (TIP)

Originally built in 1955, the Tappan Zee Bridge was maintaining a daily traffic rate of 40,000+ vehicles per day upon its completion, which greatly increased with years to come. In 2010, the bridge had a daily traffic rate of 135,000 vehicles per day, reducing the life-span of the original design. Spanning over 3 miles at the Hudson River's second widest point, the previous cantilever style bridge containing several lanes, is now being replaced by a dual-span cable-stayed twin bridge containing eight lanes. This redesign also required new foundations to be installed for which GRL Engineers services provided assistance and at a cost of \$3.9 Billion, it was one of the largest projects in North America.



TIP Analysis and reporting

GRL's services for Tappan Zee Constructors included completing a multitude of **Wave Equation Analyses** for hammer selection, **Dynamic Pile Testing (PDA)** on temporary and permanent 36 to 48-inch diameter open end pipe piles, performing **Crosshole Sonic Logging (CSL)** and **Thermal Integrity Profiling (TIP)** on 48 to 96-inch diameter drilled shafts. GRL also provided expert services on **data interpretation** and reviewing **project specifications**. Additionally, GRL Engineers provided driving criteria based on the Wave Equation Analyses, dynamic testing results and field observations.

The newly constructed West-bound lanes of the new Tappan Zee Bridge were opened in the fall of 2017, with the East-bound lanes planned to open in 2018.

For additional information, please contact:
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Construction of a 96-inch diameter drilled shaft