

STAY CABLES

SUPPORTING THE ROADWAY



The New NY Bridge’s stay cables, along with its 419-foot towers, are the most prominent features of the 3.1-mile crossing. They connect the bridge’s concrete towers to the sides of the structural steel. The resulting tension helps support the roadway.

The stay cables are installed along with the sections of structural steel on alternating sides of the towers as work continues. Precast concrete deck panels are also placed in the erected steel sections to provide a base driving surface.

The stay cables are comprised of numerous metal strands that are tightly packed in a protective sheath. The sheaths contain only a handful of strands at first, and additional strands are strung through the cable after the initial installation process to provide further strength.

Each side of the bridge’s towers require 24 stay cables to support the main span roadway, which measures 3,340 feet long and weighs 74 million pounds. Crews will install all of the northern bridge’s stay cables before shifting their efforts to the southern bridge.

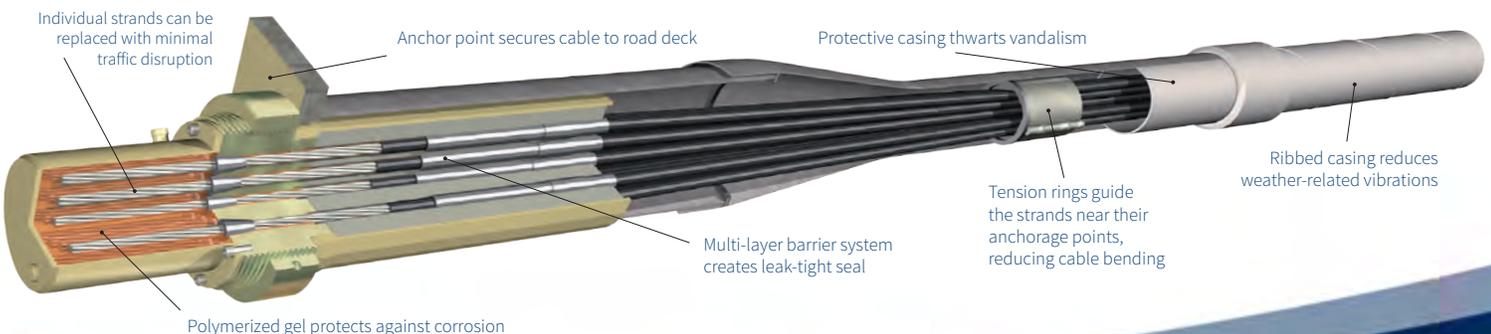


The first set of stay cables on the New NY Bridge project

INSIDE A STAY CABLE

The new bridge’s stay cables are comprised of multiple, bundled metal strands that are individually sheathed, anchored, and monitored by the project team. This strand-by-strand technology gives the bridge connections greater flexibility and collective strength.

Pictured below is a cross-section of a typical stay cable.



For illustrative purposes only

Stay Cables: By the Numbers

Number of Stay Cables

- 12 on each side of each tower
- 192 in total

Stay Cable Length

- minimum, 190 feet
- maximum, 623 feet

Total Metal Strand Length (laid end to end)

- 700 miles

Total Stay Cable Length (laid end to end)

- 14 miles