

# PROJECT HIGHLIGHT

## SONIC FROM BARGE SHORTENS GEOTECHNICAL TIEBACK PROJECT

Tieback anchors apply tensile forces to reinforce structures like bridges, dams, and retaining walls. They are typically drilled into the subsurface at an angle. Installation of tiebacks on the shoreline is challenging. This project highlights the unique combination of sonic technology and over-the-water drilling on to stabilize a New York City shoreline.

**CLIENT:** Morton Street Bulkhead Restoration

**PROJECT:** Hudson River Park

**LOCATION:** Manhattan, NYC

**TECHNOLOGY:** Sonic

**SERVICE:** Installation of tiebacks for geotechnical support

### PROJECT OVERVIEW

The scope of work called for the placement of forty-six (46), 117-foot long tiebacks along a section of shoreline on the Hudson River. This is one phase of restoration efforts to reinforce the sinking bulkhead.

A limited access mini-sonic rig drilled 8-inch casing at an angle of 30 degrees. The tieback was installed within the casing and grouted in place as the casing was removed.

Tieback anchors were installed via barge, located only a couple of feet from the shoreline.



### RESULTS

The powerful sonic technology provided many advantages over the conventional drilling methods typically used for tieback installation. Sonic is safer as it minimizes crew handling of the tooling, this is a critical factor when performing over-the-water work. It reduces drilling time as the borehole is drilled, cored, and cased at the same time. The innovative combination of the mini sonic rig and over-the-water operations shortened project duration, reduced total project costs, and exceeded client expectations.



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