

CASE STUDY

West Village Residences

Support of Excavation – New York, New York

HISTORY

The West Village Residences is a major development taking place in the heart of the Greenwich Village section of lower Manhattan. This very high profile job is being constructed on the former grounds of St. Vincent's Hospital. New York Concrete Corporation (NYCC) is the foundation/excavation contractor hired by Turner Construction to complete the foundation for the luxury condominiums which will be built in the coming years.

PROBLEM

Upon being awarded the contract, New York Concrete Corporation (NYCC) was very concerned about meeting the tough demands of the owner. Their scope of work included the installation of seven separate foundations within a large city block. With a tight budget and schedule, NYCC was exploring all options in order to minimize labor and increase productivity.

SOLUTION

One of the areas that required an increase in productivity was the tiebacks for the support of excavation. NYCC decided to install hollow bars in lieu of traditional casing and solid bar tiebacks.

Nucor Skyline turned to one of their newer products and was able to successfully supply the project with R51N and T76N hollow bars along with all of the complementary hardware.

NYCC opted for Nucor Skyline's hollow bar solution due to the product's quick, one-step installation process. The sandy soils present



on the site would have required a temporary cased and drilled micropile. The duplex drilling would have induced longer drilling time per anchor. The hollow bar anchors are grouted as the product is drilled in the ground. Typically, a better ground to grout bond is achieved as well, due to the way the grout is being delivered under pressure and it permeates the surrounding soils beyond the shaft diameter. A 5" carbide bit and 3m long materials were used. The test anchors achieved the desired results and Nucor Skyline's hollow bar system was the tieback of choice which resulted in on-time project completion.

PROJECT PARTNERS

Owner

Rudin Management – New York, NY

Construction Manager

Turner Construction – New York, NY

Foundation/Excavation Contractor

Turner Construction – New York, NY

SOE Engineer

Langan Associates – New York, NY

PRODUCT

Hollow Bar