

PROJECT PROFILE

SEGMENTAL BLOCK FACING ROCK ANCHOR WALL

Commercial > Sunrise Assisted Living in Staten Island, New York

The plan was to build a high-rise assisted living facility on the site however, land was very limited. Walltek Design Build, Inc. was challenged from the beginning due to the 70 foot drop from the top to the bottom of the site. In order for the site to be developed for this facility, Walltek had to cut back into the mountainside, which is why having a knowledgeable contractor properly design and construct a retaining wall is so critical.

Walltek excavated into the mountainside, created a ledge for the upper tier to sit on, and then built the top 20 feet. Once that was completed, they built the lower tier. The wall was built with segmental retaining wall units and rock anchors.

The biggest challenge was accessibility and site conditions so we had to develop a special platform for the workers to be lifted to the 20-foot wall height. The platform was attached to a rubber tire loader that is typically used for moving earth. The excavation had to be temporarily stabilized to keep the upper tier from collapsing in areas where rock was not present.

The final wall system, approximately 20,000 square feet, was built using top-down construction, including two 20-foot tiers for a maximum height of 40 feet.



SEGMENTAL RETAINING WALL Concord

REINFORCEMENT Rock Anchor

SQUARE FEET 19,500

Customer E.W. Howell

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