MARINE CORPS BASE - QUANTICO

Belgard® Hardscapes Provides 3,800 Square Feet, 585 Feet in Length of a Retaining Wall Using Anchorplex

PROJECT:
Marine Corps Base

LOCATION:
Quantico, Virginia

PRODUCTS:
Anchorplex Retaining Wall System, Incorporating Vertica® Wall Units

MANUFACTURED BY:
Anchor Block Company
Shakopee, Minnesota

INSTALLED BY:
BRACT Retaining Walls, Inc.
Richmond, Virgina

INSTALLATION APPLICATION:
3,800 Sq. Ft. , 585 Feet wall Length

The Challenge

A road designed in the 1960s near the entrance of Marine Corps Base Quantico needed to be widened to accommodate the increasing traffic of the base's growing population. A retaining wall is an essential part of the design plan, but there was little space to stage the construction or excavate for a wall due to slope conditions. The limited space available for excavation, equipment and geosynthetic reinforcement was the primary consideration in the system-selection process, along with other considerations, including cost and the speed of installation so the road could remain operable as much as possible during construction.

The Solution

A number of systems, including segmental retaining walls, big-block systems and poured-concrete walls, are familiar to the engineering company A. Morton Thomas & Associates of Richmond, Virginia, which was awarded the design-build contract.

The design firm presented the Anchorplex® retaining wall system built with Vertica® retaining wall blocks as a solution for the tight space. The engineers, as well as the Naval Facilities Engineering Command (NAVFAC), accepted this solution, as it addressed all of the challenges of the site.

Designed for sites just like this one, the Anchorplex system is a retaining wall built with Anchor™ products and structural backfill placed immediately behind the block. This system eliminates the need for the construction of a mechanically stabilized earth zone behind the wall face and requires less excavation and compaction than is usually necessary in a geogrid-reinforced retaining wall.

Installation of the Anchorplex system, a first for Richmond-based BRACT Retaining Walls, Inc., went smoothly. Part of the bid was to have professionals from Anchor Wall Systems on-site to provide construction support. Installing the system, composed of segmental retaining blocks laid by hand, is faster than

placing big-block systems and doesn't require large machinery. NAVFAC also approved the Vertica blocks in a variegated color, which complements the colors of the environment because the blocks were locally produced.

The Results

Russell Road has been widened without the need for extensive excavation, the retaining wall serves its purpose, and it looks good. The Anchorplex system not only provided the needed solutions for a sloped space, but the efficient installation kept the road operable during construction.

About Belgard®

Belgard, part of Oldcastle APG, offers a complete collection of paver and wall products for outdoor living spaces, walkways, driveways, parking areas and retaining walls. Available in a range of styles, premium Belgard products have been found in America's finest homes and award-winning commercial and retail properties since 1995. For more information, visit Belgard.com or call 1-877-Belgard (235-4273). Oldcastle APG is part of CRH's Building Products division. CRH is a leading global diversified building materials group, employing c.85,000 people at c.3,600 operating locations in 32 countries worldwide. CRH is the largest building materials company in North America and the second largest worldwide.

The Anchorplex® retaining wall system can be used to build in areas too small for extensive excavation.

The Anchorplex retaining wall system built with Vertica® products made it possible for the road to remain open during most of the construction.
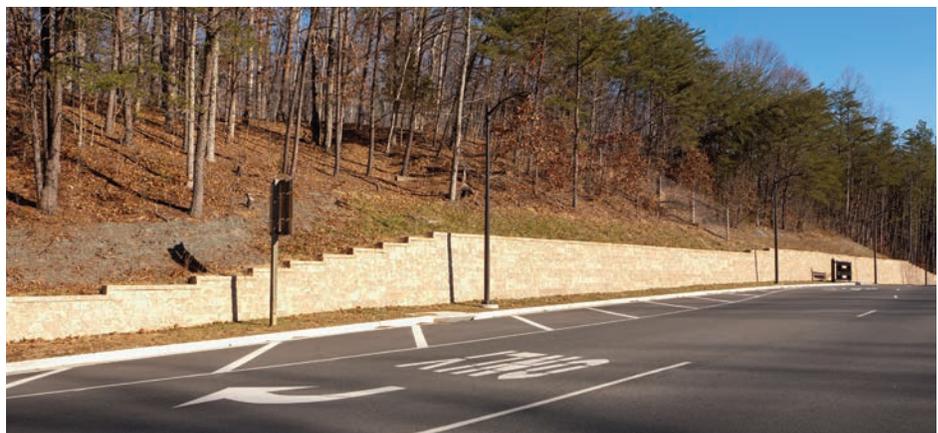
The finished wall is an important and attractive component in the widened road.