



Courthouse Hanover, VA



Ground Improvement – Installing Vibratory Stone Columns

PROJECT OVERVIEW

A new courthouse complex for Hanover County in Virginia was proposed to be three stories tall and over 115,000 square feet. The unique building plans included a partial basement and prisoner transport tunnel.

REQUIREMENTS AND CHALLENGES

The design requirements were 5,000 psf with one inch of total settlement and half an inch of differential settlement. Stone Columns were required to support all column, wall, and retaining wall footings, as well as the elevator pit walls. Additionally, 30 kip uplift anchors were needed for support.

SOLUTION AND RESULTS

CNC Foundations installed approximately 1,500 Vibratory Stone Columns, with depth ranging from ten to 25 feet. We also installed ten uplift anchors on the building, which were tested the anchors to 32 kips.

The stone column design and installation was validated by performing a full-scale load test and three plate load tests. CNC Foundations was able to complete the project a full week ahead of schedule and under budget.

Project Details

SECTOR

Courthouse

LOCATION

Hanover, Virginia

APPLICATION(S)

Aggregate Piers
VSCs for Ground Improvement

