



Chicagoland Data Center Case Study



Ground Improvement – Installing Aggregate Piers & Vibratory Stone Columns

PROJECT OVERVIEW

We installed aggregate piers/vibratory stone columns (VSC). The proposed depth was up to 30 feet but worked out to an average of about 21 feet was needed once we were in the field. CNC Foundations can adapt to changes in the field like this thanks to our years of experience and our extensive library of products and materials.

Based on field reports showing topsoil, Aggregate Piers/Vibratory Stone Columns (VSCs) were an acceptable method. There were about 350 linear feet of strip footings and several column pads, so VSCs were recommended as an economical alternative to undercutting the soils under the footings.

REQUIREMENTS AND CHALLENGES

Emergency installation. The client called and needed us as soon as possible and we were able to get on-site very quickly (about 3 weeks from the initial call). This included a proposal, expedited submittals and approval, several conference calls, and mobilization to the site.

The depth and exact characteristics of soils on site were still in question because the soils report provided didn't have accurate soil information at the location of our work. We were told topsoil was found to be about 15' to 20' below the bottom of footings. For the sake of the submittals, we needed to have a conservative estimate of 30' to be adequately prepared for the worst-case scenario. In addition, existing adjacent footings were already poured and we needed to install them very close to them. The biggest challenge was making sure we did not damage our equipment or the footings that were there.

SOLUTION AND RESULTS

Overall, it was a successful installation. We were able to expedite the entire process for them including contract, submittals, mobilization, and installation. The General Contractor was pleased with our overall performance and responsiveness. We were able to save over a hundred thousand dollars versus undercutting the footings in this corner of the building and keep the project on schedule.

Project Details

SECTOR

Data Center

LOCATION

Chicago, IL

APPLICATION(S)

Aggregate Piers/VSCs

