



Project Name

Data Center

Location

Elk Grove Village, IL

Product Type

Aggregate Piers / VSCs

Date

2020

Soils Overview

Borrow pit found while excavating for new foundations, filled with mostly topsoil. This was not found during geotechnical investigation. Soils report mostly showed silty clay at bearing depth.



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What did we install?

Aggregate Piers / Vibratory Stone Columns up to 30' depth, but an average of 21' was needed across the field.



Why did we choose this method?

Based on field reports showing topsoil, 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.

What were some Project Challenges expected/occurred?

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 did not 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.

What was the outcome of the project?

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.