



Ground Improvement – Installing Vibratory Stone Columns

PROJECT OVERVIEW

A 21,000 sf historic library is located close to the Kansas River. The site soils are gray to gray brown stiff sandy clays. Instead of using drilled piers to support the building, Vibratory Stone Columns were specified for ground improvement.

REQUIREMENTS AND CHALLENGES

The requirements for the proposed footings were designed for an allowable bearing pressure of 2,000 psf. The settlement tolerances for the structure are reported as being less than 1-inch of total settlement, with less than 1/2 inch of differential settlement between columns.

SOLUTION AND RESULTS

The design and installation was validated with a successful Modulus Load Test with Tell Tale for deflection monitoring. Data logs from the onboard computer monitor were provided to show depth and compaction of the rock.

Vibratory Stone Columns were an economical solution and improved the overall project schedule.

Project Details

SECTOR

Library, River soils

LOCATION

Kansas City, Kansas

APPLICATION(S)

Vibratory Stone Columns
(VSCs) Aggregate Piers

