

Raymond James Project

MICROPILES PROJECT

Project

The project is a 4-story commercial office building located in St. Petersburg, FL. A vertical difference in elevation of up to 2 inches was measured within the floor. The highest elevations of the floor were measured along the south wall of the building, while the lowest elevations were measured along the southern perimeter of the concrete slab. The Geotechnical Engineer of Record recommended a deep foundation solution of hydraulically pressed micropiles installed.

Challenge

- Difficulty penetrating the concrete foundation demanded the use of a specialized hydraulic drill press.
- Limited movement around the site due to the building being open for business.



Solution

Helicon worked alongside the geotechnical design team to develop a micropile design submittal. The micropile program was designed to meet the design load criteria. Micropiles are high-performance, high-capacity drilled deep foundation elements that transfer the structural load through unsuitable soil layers to competent foundation soils. The loads are transferred from the foundation through the steel and grout of the micropile and shed to surrounding rock or soil via high values of friction. Efficient planning & coordination was key to overcoming the challenges & limitations. 8 micropiles were installed from site grade to depths up to 50 feet. Helicon collaborated with the Geotechnical Engineer of Record throughout the work and confirmed all recommended criteria were followed. The micropile work was successfully completed on time and within budget.

Owner: Raymond James

Engineer: GHD Services

Market: Commercial

Solution: Deep Foundation

Services: Hydraulically Pressed Micropiles