

Allentown Business School

Allentown (Center Valley), PA



Project Description: The Allentown Business School is a 97,000 square foot, 3-story building located in Allentown, Pennsylvania. Column loads ranged from 75 to 350 kips with some uplift loading as a result of potential seismic conditions. The site area lies within a karst geologic setting characterized by weathered to intact limestone bedrock underlying residual soils. Soil conditions were highly-variable ranging from firm to dense sands to clays and silts of varying consistency. Of particular concern were the very soft residual soils overlying the limestone and the erratic rock surface. Supplemental insitu testing was conducted to further evaluate subsurface conditions. Geopier foundations were selected based on overall economics, ease of installation, ground improvement capabilities, and uplift resistance when compared with caissons and minipiles. A total of 282 Geopier elements were installed to an average depth of approximately 13 feet to support spread and strip footings designed for a bearing pressure of 4 kips per square foot.

THE GEOPIER ADVANTAGE

- Geopier elements saved 50% compared to other foundation systems or ground improvement options considered for the project.
- All of the Geopier elements were installed in about 2 weeks.
- Geopier elements provided ground improvement and footing support in highly-variable soil and rock conditions without claims or delays.

General Contractor: M.A. Mortenson Company, Charlotte, NC

Architect: Architectural Alliance, Minneapolis, MN

Structural Engineer: Palanisami & Associates, Inc., Minneapolis, MN

Geotechnical Engineer: Pennoni Associates, Inc., Lehigh Valley, PA