

University of Virginia Emmet Street Parking Garage

Charlottesville, VA



Project Description: Construction of a new parking garage to service the University was being developed on a design-build basis on a site underlain with residual silts varying from soft to stiff based on the differential weathering of the parent bedrock in the area. There was also a very soft area of alluvium deposited recently by a stream that traversed the site. Caissons to bedrock and Geopier Foundations were priced for the job to support column loads up to 1575 kips. The Geopier design was selected which allowed the columns to be supported on conventional spread footings designed for 8 ksf and saved over \$500,000 when compared to the caisson alternative. A total of approximately 580 Geopier elements were installed at the site on schedule despite having to contend with a record snowfall in the area in the winter of 2002/2003 and the need for installation in two phases between January and April to allow for stream diversion at the site.

THE GEOPIER ADVANTAGE

- Saved time and money (over \$ 500K) compared to the caisson alternative
- Allowed for construction in difficult conditions – snow and stream diversion
- Allowed conventional spread footings designed for a high bearing pressure (8 ksf) to be used.

Owner: The Commonwealth of Virginia and University of Virginia, Charlottesville, VA
General Contractor: Donley's, Cleveland, OH
Structural Engineer: CKC Structural Engineering, Bellevue, WA
Geotechnical Engineer: Froehling and Robertson, Crozet, VA