

Tyson's Tower C Parking Garage

Tyson's Corner, Virginia



Project Description: Subsurface conditions at the site for a new five story 1250 space parking structure consisted of 10 to 25 feet of residual sandy silt with SPT "N values" ranging from 4 to 20 blows per foot. A mat foundation with an allowable bearing pressure of 2000 psf was initially proposed. On site load testing of Geopier elements in the fill showed that a bearing pressure of 7000 psf could be utilized with conventional spread footings. Approximately 555 - 30-inch diameter Geopier elements ranging in length from 8 to 18 feet were used to support individual spread footings with column loads ranging from 250 to 3000 kips. The Geopier design was found to be more economical and controlled settlement to closer tolerances than the original mat foundation design.



THE GEOPIER ADVANTAGE

- Use of Geopier elements instead of the Mat Foundations saved money and controlled settlement to closer tolerances
- On Site load testing confirmed the design assumptions prior to construction
- Design/Build package allowed focused on engineered settlement control

Owner & Developer: Lerner Enterprises, North Bethesda, MD

Contractor: Clark Construction Group, Inc., Bethesda, MD

Structural Engineer: SK&A Consulting Structural Engineers, Rockville, MD

Geotechnical Engineer: Schnabel Engineering Associates, Inc., Leesburg, VA