



## Carolina Medical Center and Parking Garage

Charlotte, North Carolina

**The Geopier GP3® system was recommended as the Intermediate Foundation® solution in lieu of other foundation support alternatives by the geotechnical engineer**

**Description:** This project involved the construction of a four story addition to an existing hospital facility and a new parking garage.

**Subsurface Conditions:** Subsurface conditions were soft to stiff residual silt and sandy silt and loose to medium dense residual silty sand that extended 12 to 20 feet. Below 20 feet the soil generally consisted of stiff to hard residual sandy silt and medium dense to dense residual silty sand. Groundwater was encountered at approximately 25 feet from subgrade.

**Geopier Solution:** The Geopier GP3® system was recommended by the geotechnical engineer for the foundation support solution. A total of 650 Rammed Aggregate Pier® elements, 30 inches in diameter, were installed to depths that ranged from 10 to 25 feet below the foundation base. Column loads ranged from 50 to 1,675 kips and wall loads were up to 10 kips per foot.



### PROJECT TEAM

**Owner:**

Carolina Medical Center

**Geotechnical Engineer:**

PSI, Inc.

**Structural Engineer:**

Uzun & Case Structural Engineers

**General Contractor:**

Robins & Morton

**Geopier Installer:**

GeoConstructors, Inc.

**Geopier Designer:**

GeoStructures, Inc.