



North Haven Apartment Complex

Carmel, Indiana

The Geopier GP3® system was recommended as an effective way to minimize risks and save on cost

Description: Construction of 14 three-story apartment buildings. Strip footings were loaded up to 6,000 pounds per foot.

Subsurface Conditions: Six feet of compacted clay fill underlain by 6 to 8 feet of peat, marl, and organic clay, underlain by medium dense, poorly graded sand. Organic contents in the peat were as much as 21 percent with moisture contents in excess of 200 percent. Groundwater was located near the peat/sand interface.

Geopier Solution: The soil reinforcement allowed the placement of structural loads and floor slab without removal of the organic soil or the use of deep foundations. The Geopier® elements with shaft lengths of 12 to 15 feet were installed through the organic soils penetrating into the underlying sand. A total of 973 Geopier elements were installed during November and December saving in excess of \$250,000 compared to overexcavation and backfill or deep foundations.



PROJECT TEAM

Owner:

J. C. Hart Company

Geotechnical Engineer:

Patriot Engineering & Environmental, Inc.

Structural Engineer:

Silver Creek Engineering

General Contractor:

J. C. Hart Company

Geopier Designer:

GFC Great Lakes.