GEOSOLV DESIGN > BUILD

GEOPIER®

www.geosolv.ca

Bluebird Storage
Toronto, Ontario

Challenge

The construction of a new 6-storey self-storage building was proposed on a site where the soil conditions at the location mainly consisted of 0.5 to 2 meters of sand and gravel to sand fill underlain by native loose to compact sand to sandy silt to depths of 2.5 to 4.5 meter below the ground surface. Additionally, under the native sand to silty sand was a deposit of firm to hard clayey silt to silty clay.

Solution

The Rapid Impact Compaction (RIC) System was selected as a cost-effective approach to compacting the generally sandy loose upper profile. Along the property edges, the Geopier Impact® system was used to ensure compliance with the City of Toronto bylaw.

Outcome

The project improved the geotechnical bearing capacity of up to 225 kPa at Ultimate Limit States (ULS) and 150 kPa at Serviceability Limit States (SLS) for 25 mm of total deflection [19 mm of differential deflection] for footings and for floor slab to support loads of up to 12 kPa for 25 mm of deflection. Significant time and cost-savings were realized on this project by utilizing a combination of ground improvement systems.

Storage facilities on poor soil sites can be cost-effectively built on GeoSolv ground improvement systems

Project Team

G.C./Owner
Maple Reinders

Structural Engineer
McIntosh Perry

Geotechnical Engineer
Amec FW (Wood.)

Ground Improvement - Rigid Inclusions - Piling Systems - Slope Stability - Ground Reinforcement

Before you Remove It or Go Through It, contact us to *Improve It*
at (905) 266-2599 or email us at solutions@geosolv.ca

IHSA.ca Work Safe for Life

Project #00968