

Glendale Retail Centre St. Catharine's, Ontario

| Challenge

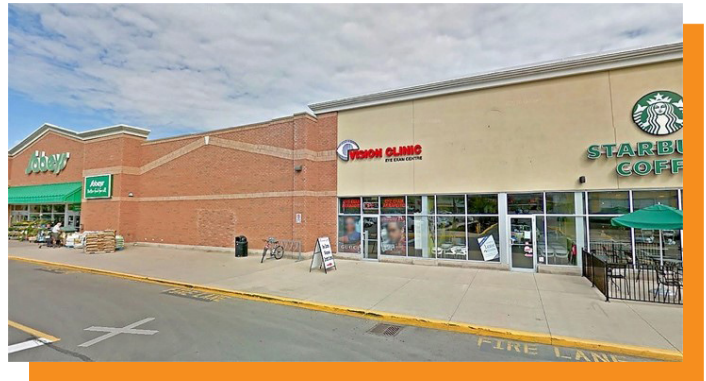
A large multi-store retail facility had column loads that ranged up to 500 kN and floor slab loads that ranged up to 12 kPa. Soil conditions were highly variable and consisted of up to 8m of clayey silt to sandy silt Fill with organic silt and alluvium in some areas. Obstructions were discovered throughout the site, including a deeply-buried strip footing from an historical building foundation.

| Solution

Geopier Rammed Aggregate Pier® Elements with shaft lengths of a minimum of 3m and also full penetration of all fill soils for columns, walls and slabs was decided upon for this site.

| Outcome

Based on the deep and environmentally impacted fill soil, overexcavation and replacement had an exorbitant cost and an unworkable schedule. Overall Geopier provided considerable cost and schedule savings. In addition, since the Geopier® Elements do not depend on end bearing, and the strip footing obstruction was determined to be resting on native soil, the obstruction could remain in place. The use of Geopier resulted in significant cost savings for the owner of the site including the expenses associated to the buried footing obstructions, which might have otherwise required expensive removal.



Significant obstructions within the undocumented fill soil had the potential to derail this important project. This was avoided using the Rammed Aggregate Pier® system

Owner

Crombie REIT/Sobey's

General Contractor

Traugott Building Contractors Inc.

Geotechnical Engineer

AMEC

Architect

Brenik Engineering Inc.

Project Team

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

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