

GO Transit Bus MSF Streetsville, Ontario

| Challenge

This design-build, 18,000 m² bus facility faced major challenges including 2.5 m to 4.5 m of urban fill with a trapped topsoil layer over till, floodplain issues, and a tight schedule. The building had 2000 kN column loads and 20 kPa floor slab pressures and local uplift issues and there was also 20,000 m² of exterior rigid concrete pavement that could not be founded on fill.

| Solution

The Geopier® GP3® system was selected to avoid massive overexcavation and replacement of up to 4.5 m of earth fill and organics. Geopier Rammed Aggregate Pier® elements were installed to support columns and slab, as well as the exterior rigid concrete pavements.

| Outcome

By utilizing the Geopier Rammed Aggregate Pier system significant schedule improvements were realized as well as a bearing capacity of 240 kPa. Maximum cost containment was achieved avoiding cost and schedule overruns often associated with massive overexcavation and replacement. The Geopier system also endorsed for significant LEED enhancements on this project.



Construction of this important piece in GO Transit's bus system was completed with the Geopier® GP3® system resulting in significant cost savings

Geotechnical Engineer

InspecSol Inc.

General Contractor

Buttcon Ltd.

Project Team

Structural Engineer

Read Jones Christoffersen Ltd.

Architect

Strasman Architects Inc.

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

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