

Jeffrey Golder, P.Eng.

StrataLogic Inc. · Hamilton, Ontario

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PROFESSIONAL CREDENTIALS

Licence Professional Engineer, Professional Engineers Ontario (PEO), Licence No. 100155552

Firm StrataLogic Inc., PEO Certificate of Authorization No. 100676388

Education Bachelor of Applied Science, Civil Engineering, University of Ottawa, 2008

Practising Geotechnical engineering since 2008

Membership Canadian Geotechnical Society (CGS)

PROFESSIONAL PROFILE

Geotechnical engineer with over 18 years of practice across investigation, design, construction review, and forensic assessment. Experience spans field supervision, project management, and direction of a multidisciplinary office, with project types ranging from single-family residential to high-rise, commercial, industrial, and municipal infrastructure.

AREAS OF PRACTICE

- Shallow and deep foundation design; underpinning and remedial support, including helical piers
- Settlement and consolidation analysis; bearing capacity and pile/caisson capacity
- Slope stability and global stability analysis; embankment design
- Ground improvement, lightweight fill, wick drains, and cellular concrete alternatives
- Retaining walls, excavation support and shoring, and dewatering
- Trenchless installation assessment: horizontal directional drilling, jack-and-bore, and microtunnelling
- Geotechnical instrumentation and monitoring: settlement points, slope inclinometers, vibrating wire piezometers, crack monitoring
- Pavement design, subgrade evaluation, and pavement distress assessment
- Forensic investigation of foundation settlement, slab heave and cracking, and structural distress
- Construction review, quality control inspection, and materials testing
- Excess soils management and coordination under O. Reg. 406/19
- Seismic site classification and earthquake design parameters

PROFESSIONAL EXPERIENCE

Owner and Director · StrataLogic Inc., Hamilton, ON September 2025 – Present

- Direct all engineering and business operations of the firm, including scope development, proposals, technical delivery, and report production
- Provide geotechnical investigation, construction review, and forensic assessment for residential, commercial, industrial, and municipal clients
- Retained by a large international engineering firm to provide technical guidance and engineering review
- Conduct forensic assessments of residential structures affected by settlement and foundation distress

Manager, Hamilton Office · EXP Services Inc., Hamilton, ON 2017 – 2025

Field Supervisor and Geotechnical Engineer, Sudbury and Hamilton, ON, 2010 – 2017

- Directed office and laboratory operations, including staffing, performance management, budgeting, and CCIL-compliant laboratory practice
- Determined scope and prepared proposals and cost estimates for geotechnical investigations, inspection and testing programs, and multi-subcontractor instrumentation monitoring programs
- Authored geotechnical reports for buried infrastructure replacement by open-cut and trenchless methods, residential and commercial development, high-rise buildings, bridges, roads and highways, retaining walls and shoring, and mining and industrial structures
- Designed, implemented, and supervised instrumentation monitoring programs for embankments, excavations, and tunnelling operations
- Supervised geotechnical investigations and site inspections carried out for litigation purposes to determine the cause of failure or damage and to develop remedial options
- Performed structural condition surveys of buildings, dams, bridges, and parking structures, and reviewed contractor repair methods and procedures
- Conducted quality assurance audits and inspections of prestressed and precast concrete plants and supervised fabrication and installation of MTO bridge and culvert components
- Resolved construction site issues involving poor soil conditions, groundwater, and undermining of adjacent structures, communicating remedial options to contractors and owners
- Carried out analyses for slope stabilization, foundation settlement and consolidation, end-bearing capacity of piles and caissons, and earthquake design
- Trained and mentored field staff in safety, engineering principles, and inspection and testing procedures, and reviewed field notes and draft reports

Geotechnical Engineering Intern · Terraprobe Inc., Sudbury, ON 2008 – 2009

- Supervised commercial and residential subdivision development including buried infrastructure, roadways, retaining walls, and building foundations
- Scheduled and supervised borehole and test pit investigations; drafted borehole logs and site plans
- Performed laboratory testing including grain size analysis, Proctor tests, Atterberg limits, and concrete and mortar compressive strength
- Conducted quality control inspection of steel reinforcement, concrete, and soil compaction

TEACHING

Contract Professor · Mohawk College, Hamilton, ON 2019 – 2020, 2026

Instructor for Geotech. 1 and redeveloped and taught the curriculum for Geotechnics B. Delivered lectures on soil properties and their application in earthworks, stress analysis, consolidation, excavations, and slope stability, reinforced by laboratory testing conducted in accordance with CCIL procedures.

REPRESENTATIVE PROJECT EXPERIENCE

750 mm watermain by open-cut and trenchless methods, Grimsby, ON — Directed the geotechnical and hydrogeological investigation for a 3.3 km watermain installation, including eight tunnelled crossings beneath CN rail lines and MTO-owned culverts and bridge foundations. Evaluated horizontal directional drilling, jack-and-bore, and microtunnelling options and provided recommendations for each. Developed and oversaw the settlement monitoring programs for the MTO and CN crossings during construction. Coordinated approvals, permitting, and locates across CN Rail, MTO, Niagara Region, and the Town of Grimsby, and delivered the project on schedule.

Forensic investigation, newly constructed single-family dwelling — Retained by the developer in anticipation of potential legal proceedings to determine the cause of significant basement slab movement, foundation wall cracking, and interior distresses in a newly constructed home. Completed a desktop review of available records and developed a scope comprising crack monitoring, several boreholes, and review of the exposed foundation. Determined that the dwelling had been constructed on engineered fill and that the building footprint extended beyond the limits of that fill onto uncompacted material. Recommended underpinning with helical piers carried to the competent undisturbed soil identified in the boreholes.

Forks Road bridge replacement, Welland, ON — Carried out consolidation settlement analysis for proposed abutment infill placing up to 14 m of fill over soft underlying clays, undertaken to reduce the required bridge span. Completed settlement, slope, and global stability analyses for the embankments and evaluated lightweight fill, wick drains, ground improvement, granular fill, cellular concrete, and revised bridge foundation configurations, providing supporting analysis for each option.

Trenchless sanitary sewer beneath CPKC rail, Church Street, Pelham, ON — Geotechnical Engineer of Record for a 900 m sanitary sewer including a 40 m tunnelled crossing beneath a CPKC railway. Directed the geo-environmental and hydrogeological study and determined that the loose, saturated, fast-ravelling sands along the crossing were unsuitable for the proposed auger-guided boring method. Recommended dewatering by vacuum well points and completed settlement analysis for both dewatering and tunnelling effects. During construction, responded to RFIs, reviewed settlement monitoring results, and troubleshoot tunnelling issues. When site inspection identified that the alignment had gone off course and caused over-excavation, paused tunnelling, convened the project stakeholders, calculated the settlement potentially arising from the error, and increased monitoring frequency to verify actual ground movement. Settlement beneath the track remained within CPKC tolerances.

Metrolinx West Harbour GO Station, Hamilton, ON — Key project member for the station at James Street, contributing to the geotechnical investigation, embankment design, settlement analysis, construction inspection, and environmental monitoring. Scope included a station building on piled foundations, rail platforms, a multi-level parking structure, embankments, and caisson retaining structures.

Various projects, Mohawk College, Hamilton, ON — Directed geotechnical investigations and provided construction review for parking lot rehabilitation, a storey added to an existing building, a new multi-storey learning space, and a campus monument at the Fennell and Stoney Creek campuses. Identified unforeseen poor ground conditions during monument construction and worked on site with the College, structural engineer, and contractor to recommend a cost-effective revised foundation scheme with minimal schedule impact.

Public sector geotechnical, environmental, and inspection contracts — Managed over 100 projects under municipal and public sector roster contracts with Infrastructure Ontario, the City of Hamilton, Town of Oakville, Niagara Region, St. Catharines, Welland, Thorold, Niagara Falls, and Fort Erie. Work included utility replacement, roadway reconstruction, facilities such as fire stations and correctional centres, and park improvements, requiring close coordination between geotechnical, hydrogeological, and environmental teams including excess soils management under O. Reg. 406/19.

Highway 11/17 four-laning, Thunder Bay, ON (MTO Contract 2014-6026) — Coordinated the installation of over 300 geotechnical instruments across eight sites on a \$32M project, monitoring ground movement associated with embankment construction up to 8.0 m high over soft saturated clays. Instrumentation included survey benchmarks, settlement rods, slope inclinometers, vibrating wire piezometers, digital settlement systems, and shape accel arrays, together with associated cabling and trenching, data loggers, power supply, and electrical grounding. Attended site to select monitoring shed locations, ensure correct installation, and troubleshoot installation and ground conditions encountered during drilling. Obtained baseline measurements and handed over the system, providing continued support through the monitoring period.