



List of Our Key Ongoing Projects

Project 1:

Name of Project: Geotechnical Instrumentation and Monitoring Plan- Segment 1- Keele and Mt Dennis Stations

Location: Toronto, Ontario, Canada

Client: Metrolinx-Eglinton Crosstown Light Rapid Transit (ECLRT) Project

Main project features: Geotechnical Instrumentation and Monitoring

Activities performed: install and monitoring following instrument

- One hundred twenty two (122) of Building Monitoring Point (BMP)
- Twelve (12) of 5 Tex Tunnel Circularity Array (TCA)
- Twenty two (22) Inclinometer - In Pile and Borehole (INC)
- Three (3) of In-Place Inclinometer (SAA)
- Four (4) of Pressure Cell Array (PCA)
- Two hundred fifty three (253) of Pile Target Point (PTP)
- One hundred seventy eight (178) of Rail Target Point (RTP)
- Twenty four (24) of Surface Monitoring Point (SMP)
- Eight (8) of Piezometer (SPZ) and Piezometer (VPZ)
- Thirty three (33) of Utility Target Point (UTP)
- Sixteen (16) of Tilt Meter (TIM) and real-time data collection system
- Set up Data Acquisition System and Internet data upload, incl. all required hardware (data logger, wiring, antenna, power supply, etc.) and software for PCA, SAA, VPZ and TIM.
- Prepared and installed eleven (11) real-time vibration stations and ten (10) real-time noise monitoring stations and data collection system;
- And weekly attendant noise and vibration manual monitoring.

Project 2:

Name of Project: Eglinton Crosstown LRT Project – Civil and Guideway Portals, West Portal

Location: Toronto, Ontario, Canada

Client: Metrolinx-Eglinton Crosstown Light Rapid Transit (ECLRT) Project

Main project features: Geotechnical Instrumentation and Monitoring

Activities performed: install and monitoring following instrument

- Four (4) Tilt Meter (TIM) including the Data Acquisition System
- Four (4) Building Monitoring Point (BMP)
- Eight (8) inclinometers(INC);
- Fifteen (15) pile monitoring targets (PTP);
- Nine (9) surface monitoring points(SMP);
- Six (6) standpipe piezometers(OPZ);
- Twenty three (23) utility monitoring points(UMP);
- Eight (8) vibrating wire piezometers(SPZ);
- Thirty-six (36) vibrating wire strain gauges (VSG).



- Five (5) load cells (LC)
- Set up Data Acquisition System and Internet data upload, incl. all required hardware (data logger, wiring, antenna, power supply, etc.) and software for TIM and VSG.

Project 3:

Name of Project: Eglinton Crosstown LRT Project – Civil and Guideway Portals, East Portal

Location: Toronto, Ontario, Canada

Client: Metrolinx-Eglinton Crosstown Light Rapid Transit (ECLRT) Project

Main project features: Geotechnical Instrumentation and Monitoring

Activities performed: install and monitoring following instrument

- Two (2) Tilt Meter (TIM) including the Data Acquisition System
- Two (2) Building Monitoring Point (BMP)
- Night (9) inclinometers(INC);
- One hundred forty (140) pile monitoring targets (PTP);
- Thirteen (13) surface or ground monitoring points (SMP);
- Ten (10) vibrating wire piezometers (VPZ);
- Fifteen (15) vibrating wire strain gauges (VSG).
- Set up Data Acquisition System and Internet data upload, incl. all required hardware (data logger, wiring, antenna, power supply, etc.) and software for VSG, VPZ and TIM.

Project 4:

Name of Project: Geotechnical Instrumentation and Monitoring Plan- Segment 5- Kennedy Station

Location: Toronto, Ontario, Canada

Client: Metrolinx-Eglinton Crosstown Light Rapid Transit (ECLRT) Project

Main project features: Geotechnical Instrumentation and Monitoring

Activities performed: install and monitoring following instrument

- One hundred eighteen (118) of Building Monitoring Point (BMP);
- Forty six (46) Electrolevel Beam Sensors (EBS);
- Thirty six (36) Inclinometer - In Pile and Borehole (INC);
- One (1) of In-Place Inclinometer (SAA);
- Two (2) of Pressure Cell Array (PCA);
- Over seven hundred (700) of Pile Target Point (PTP);
- One hundred and night (109) of Rail Target Point and prism (RTP);
- Six (6) of Surface Monitoring Point (SMP);
- Eight (8) of Piezometer (SPZ);
- Fifty one (51) of Utility Target Point (UTP) and Utility Monitoring Point (UMP);
- Sixty four (64) of Tilt Meter (TIM) and real-time data collection system;
- Nine (9) Vibrating Wire Piezometer (VPZ);
- Set up Data Acquisition System and Internet data upload, incl. all required hardware (data logger, wiring, antenna, power supply, etc.) and software for EBS, PCA, SAA, VPZ and TIM.



Project 5:

Name of Project: Geotechnical Instrumentation and Monitoring Plan- Segment 5- Kennedy Station - Utility Crossing

Location: Toronto, Ontario, Canada

Client: Metrolinx-Eglinton Crosstown Light Rapid Transit (ECLRT) Project

Main project features: Geotechnical Instrumentation and Monitoring

Activities performed: install and monitoring following instrument

- Twenty eight (28) of Building Monitoring Point (BMP)
- Eighty six (86) of Rail Target Point and prism (RTP)
- Three (3) of Tilt Meter (TIM) and real-time data collection system
- Set up Data Acquisition System and Internet data upload, incl. all required hardware (data logger, wiring, antenna, power supply, etc.) and software for TIM.

Project 6:

Name of Project: Don Yard Layover Upgrade and Expansion (PT-2015-USI-094)

Location: Toronto, Ontario, Canada

Client: Metrolinx

Main project features: Railway re-construction and expansion work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Two hundred eighty seven (287) of Settlement Rod (SR);
- Eight (8) Building Monitoring Point (BMP);
- Four (4) Utility Monitoring Point (UMP);
- Twenty seven (27) Structure Monitoring Point (SMP).

Project 7:

Name of Project: Stouffville Rail Corridor Track Expansion – Construction of 2nd Track between Sheppard Avenue to Scarborough Junction Tender No. IT-2015-CI-047.

Location: Toronto, Ontario, Canada

Client: Metrolinx

Main project features: Rail Corridor Track Expansion

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Two hundred and twenty (220) Surface Monitoring Points (SMP);
- One hundred and ten (110) Settlement Rod (SR);
- Twelve (12) Settlement/Lateral Monitoring Pins(SP);
- Fifty (50) Pile Monitoring Points (PMP);
- Six (6) Utility Monitoring Points (UMP).

Project 8:

Name of Project: Construction of a New GO Station at Bloomington Road and Highway 404 Tender No. PT-2016-CRH-001

Location: Aurora, Ontario, Canada

Client: Metrolinx



Main project features: New GO Station Construction

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- One hundred seventy (170) of Settlement Rods (SR) for monitoring the railway tracks.

Project 9:

Name of Project: Kitchener Corridor Infrastructure, Weston Subdivision Mile 7.2 to Mile 9.3 & Mile 11.5 to Mile 13.5 - Track and Grading PT-2016-CKU-085

Location: Kitchener, Ontario, Canada

Client: Metrolinx

Main project features: Watermain and Tunnelling work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Fifty three (53) Settlement Rods (SR);
- Twenty eight (28) Structure Monitoring Point (SMP);
- Thirty four (34) Building Monitoring Point (BMP).

Project 10:

Name of Project: Torbram Road Grade Separations, Mississauga, Ontario (Contract 17111 06104/Procurement FA.49.468-13)

Location: Mississauga, Ontario, Canada

Client: Metrolinx

Main project features: Railway Grade Separations

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for Metrolinx approve.
- Prepared the vibration and noise monitoring program for Metrolinx approve.
- Prepared and installed and monitored one (1) real-time vibration stations and one (1) real-time noise control station
- Supply, installation and monitoring eighty (80) settlement rods (SR), sixty-two (62) pile monitoring points (PMP) and ten (10) inclinometers in soldier piles for monitoring the ground and railway track movement, adjacent buildings and shoring support system.
- Supply, installation and monitoring ninety (90) settlement rods (SR) and nine (9) deep settlement points (DMP) for monitoring the ground and railway track movement during the jack and bore works.

Project 11:

Name of Project: TTC Easier Access Phase III- Royal York Station (Contract W45-6)

Location: Toronto, Ontario, Canada

Client: TTC

Main project features: Easier Access Construction

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- One (1) of Deep Benchmarks(DBM);
- Seven (7) of Inclinometers (INCs);



- Two (2) f Vibrating Wire Piezometer (VWP) and Two of Open Standard Piezometer;

Project 12:

Name of Project: TTC Wilson Yard Track and Structure Building Renovation (Contract AW1-3)

Location: Toronto, Ontario, Canada

Client: TTC

Main project features: Renovation work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Installed and monitor one (1) real-time vibration stations and one (1) real-time noise monitoring station.

Project 13:

Name of Project: TTC Hillcrest Complex Surface Way Facility Replacement, and Harvey Shop Loading Deck (Contract M7-2 and M1-91)

Location: Toronto, Ontario, Canada

Client: TTC

Main project features: Facility Replacement

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Thirty three (33) Surface Monitoring Points (SMP);
- One (1) of Deep Settlement Monitoring Points (DMP).

Project 14:

Name of Project: TTC Wellesley Station Easier Access Phase III (Contract S45-8)

Location: Toronto, Ontario, Canada

Client: TTC

Main project features: Subway Station Easier Access

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for TTC approve.
- Supplied and installed six (6) real-time vibration stations and three (3) real-time noise stations.
- Thirty one (31) of Building Monitoring Point (BMP);
- Four (4) Electrolevel Beam Sensors (EBS);
- Four (4) Inclinator - In Pile and Borehole (INC);
- Sixteen (16) of Precise Leveling Points (PLP);
- Sixteen (16) of Vibrating Wire Strain Gauges (VSG);
- Sixteen (16) of Dial Gauges (DG);
- Two (2) of survey target prism (RTP);
- Sixty (60) of Crack Gauges (CG);
- Four (4) of Open Standard Piezometer (SPZ);
- Eight (8) of Utility Monitoring Point (UMP);



- Set up Data Acquisition System and Internet data upload, incl. all required hardware (data logger, wiring, antenna, power supply, etc.) and software for EBS and VSG.

Project 15:

Name of Project: Highway 401 Reconstruction and Widening from 0.3 km East of Waterloo Regional Road 8 to 0.1 km West of Waterloo Regional Road 24, City of Cambridge, Ontario (Contract No.: 2014-3014).

Location: West Region, Ontario, Canada

Client: MTO

Main project features: Embankment, Subgrade, Ground water and Tunnelling Work

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for owner approve.
- Supply and installation ten (10) settlement pins (SPs) and four (4) settlement rod (SRs) monitoring the roadway embankment
- Supply and installation fifty-eight (58) settlement rod (SRs), eighteen (18) inclinometers (INCs) and fifty-three (53) pile monitoring point (PMPs) to monitoring the Railway Tracks and shoring system.
- Supply and installation four (4) deep settlement monitors (DSMs) and thirty-six (36) shallow settlement monitors (SSMs) for the tunnelling work.
- Supply and installation four (4) Drive Point Piezometers (DPPs) for monitoring the ground water level.

Project 16:

Name of Project: MTO #2017-2001 Highway 400 Widening from Major Mackenzie Drive to King Road

Location: Vaughan, Ontario, Canada

Client: MTO

Main project features: Road Widening Construction Work

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for MTO approve.
- Supply and installation twenty four (24) Settlement Pins (SP) for monitoring the embankment settlement.

Project 17:

Name of Project: MTO – Hwy 400 from King Road to Hwy 9 – Contract No. 2017-2019

Location: King, Ontario, Canada

Client: MTO

Main project features: Hwy 400 widening construction work

Activities performed:

- Prepared the vibration monitoring plan for client approve.
- Supplied and installed two (2) real-time vibration stations.

Project 18:

Name of Project: MTO 2016-2048- HWY. 401 Part A: Hwy 401 & Leslie Street I/C - W-N/S Ramp

Location: Toronto, Ontario, Canada



Client: MTO

Main project features: Hwy 401 Ramp Construction

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for MTO approve.
- Supply, installation and monitoring Ten (10) Structure Monitoring Points, Fifty nine (59) Settlement Rod (SR), Sixty seven (67) Surface Monitoring Points supply (SMP), Ten (10) Structure Monitoring Points supply (SMP) and Four (4) Ground Monitoring Points (GMP) for monitoring the ground, highway, structure and railway track movement.

Project 19:

Name of Project: Hwy 400 at Hwy 9 from South of 19th Side Road to North of South Canal Bridge (Contract No. 2015-2004).

Location: Kettleby, Ontario, Canada

Client: MTO

Main project features: Highway 400 Reconstruction and Widening

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for owner approve.
- Supply, installation and monitoring twenty three (23) Settlement Plates (SP); twenty three (23) Settlement Pins (S); seven (7) Vibrating Wire Piezometers (VWP); two (2) Standpipe Piezometers (SSP); five (5) Survey Benchmark (BM); four (4) Settlement Profilers (PR); two (2) Inclinerometers (INC) for monitoring the, ground water, embankment and structures.
- Supply and install (4) Shape Accel Arrays (SAA) and set up the automatic data collection and management system for monitoring the settlement movement.

Project 20:

Name of Project: Road Improvement for HWY 9 from 6.04 km west of Hwy 400 to 1.92 km west of HWY 400, Schomberg, ON (Contract No. 2016-2014)

Location: Schomberg, Ontario, Canada

Client: MTO

Main project features: Highway Reconstruction and Widening

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for owner approve.
- Prepared the vibration monitoring program for owner approve.
- Supply and installation six (6) settlement pins (SP) and six (6) bridge monitoring points (BMP) for monitoring the embankment and bridge.
- Supply and install two (2) real-time vibration stations monitoring for the existing bridge and neighbors during the piling and construction work.

Project 21:

Name of Project: Highway 400/11 Willow Creek South Bridge Replacement, Barrie ON (Contract No. 2016-2013)

Location: Barrie, Ontario, Canada

Client: MTO

Main project features: Highway and Bridge Reconstruction and Widening

Activities performed: install and monitoring following instrument



- Prepared the monitoring program for owner approve.
- Prepared the vibration monitoring program for owner approve.
- Supply and installation twelve (12) Structure Monitoring Points (SMP) for monitoring the existing bridge structure.
- Supply and install two (2) real-time vibration stations monitoring for the existing bridge and neighbors building during the piling and construction work.

Project 22:

Name of Project: Construction of East Brampton Trunk Sewer Twinning, City of Brampton, Project 11-2201 (Document 2016-010T)

Location: Brampton, Ontario, Canada

Client: Regional of Peel

Main project features: Sewer and tunnelling work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Three (3) of Deep Benchmarks(DBM);
- Twenty (20) of Surface Mounted Settlement Points (SMSP);
- Ten (10) of Shallow Settlement Points (SSP);
- Thirty five (35) of Ground Monitoring Points (GMP);
- Five (5) of Deep Settlement Points (DSP);
- Seventy four (74) Surface Monitoring Marker (SMM);
- Two (2) of In-ground Cased/Not Cased Settlement Monitoring Points (IGMP);
- Eighty one (81) Surface Mounted Point (SMP);
- Five (5) of Utility monitoring points (UMP);
- One hundred thirty (130) Shallow Settlement Points (SSP).

Project 23:

Name of Project: Watermain Replacement on Mississauga Road and Argentina Road, City of Mississauga, Peel Region, Ontario- Project No. 16-1341-03 (Contract 2017-110T)

Location: Mississauga, Ontario, Canada

Client: Regional of Peel

Main project features: Tunnelling work for Watermain Replacement

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for Client approve.
- Supply, installation and monitoring four (4) Deep Settlement Monitoring Points (DSP), Twelve (12) Settlement Monitoring Points (SMP) and Twenty four (24) Shallow Settlement Monitoring Points (SSP) monitoring the ground and railway track movement.

Project 24:

Name of Project: Peel-Burnamthorpe Water Project Contract 3, City of Mississauga (Tender 2017-209T)

Location: Mississauga, Ontario, Canada

Client: Regional of Peel

Main project features: Watermain and Tunnelling work



Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Six (6) of Surface monitoring marker (SMM);
- One (1) of Surface monitoring points (SMP);
- Three (3) of building monitoring points (BMP).

Project 25:

Name of Project: Contract: 2017-018T Assignment A-Water main Replacements in Southwest Mississauga

Location: Mississauga, Ontario, Canada

Client: Regional of Peel

Main project features: Watermain and Tunnelling work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- One (1) of Deep Benchmarks (DBM);
- Seven (7) of Surface Settlement Markers (SSM);
- Four (4) In-Ground Settlement Points (IGSP).

Project 26:

Name of Project: Twinning of West Trunk Sewer, Contract 1

Location: Mississauga, Ontario, Canada

Client: Region of Peel

Main project features: Sewer Tunnel cross Hwy 401 and 403

Activities performed: install and monitoring following instrument

- Preconstruction condition survey
- Prepared the geotechnical monitoring program for region approve.
- Precision survey and three dimensions monitoring data reporting for eighty-six (86) railway trucks, ground surface, structure and expressways.

Project 27:

Name of Project: Kelso-Glen Eden Pipe Replacement and HDD - CP Crossing Mile 35.52 to 35.95 Galt Subdivision Line, Conservation Halton

Location: Milton, Ontario, Canada

Client: Conservation Halton

Main project features: Pipe replacement and Tunnelling work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- One (1) of Deep Benchmarks (DBM);
- Forty four (44) of Surface Monitoring Points (SMP);
- Three (3) In-Ground Settlement Points (IGSP).



Project 28:

Name of Project: Construction of 900mm Feedermain from Dorval Drive to the Davis Road Pumping Station and 300mm Watermain on Speers Road in the Town of Oakville (CONTRACT W-2998-16)

Location: Oakville, Ontario, Canada

Client: Regional of Halton

Main project features: Feedermain and tunnelling work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Four (4) of Deep Seated Benchmarks (DBM);
- Five (5) of Deep Settlement Points (DSP);
- Four (4) of Shallow Settlement Point (SSP);
- One hundred thirty two (132) of Ground Monitoring Point (GMP);
- Six (6) of bridge monitoring points (BMP);
- Thirteen (13) of Surface Mounted Settlement Points (SMSP);
- Eleven (11) of Surface Monitoring Marker (SMM);
- Prepared and installed two (2) real-time vibration stations and data collection system.

Project 29:

Name of Project: Trafalgar & Derry Road Feedermain and 30ML Zone 4 Reservoir, Oakville, Ontario (Tender No W-2990A-15)

Location: Oakville, Ontario, Canada

Client: Regional of Halton

Main project features: Feedermain and tunnelling work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Three (3) of Deep Benchmarks(DBM);
- Thirty two (32) Surface Mounted Point (SMP);
- Twenty eight (28) of Settlement Rods (SR);

Project 30:

Name of Project: Construction of Zone 1 Watermain from Burloak WPP to Kitchen Reservoir, City of Burlington and Town of Oakville, Ontario (Contract W-2580C-15).

Location: Oakville, Ontario, Canada

Client: Regional of Halton

Main project features: Trunk Wastewater Main

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for owner approve.
- Supply, installation and monitoring twenty seven (27) Surface Monitoring Points (SMP); fifteen (15) In-ground Monitoring Points (IGMP); fifteen (15) Convergence Pin (CP); four (4) Inclinometers (INC); eight (8) Strain Gauge (SG); eight (8) Load Cell (LC); two (2) Multi-Point Borehole Extensometers (MPBX) and set up the automatic monitoring data collection and management system.



Project 31:

Name of Project: Washburn Second Feedermain in the City of Burlington, Regional Municipality of Halton (Contract W-2931A-16)

Location: City of Burlington,, Ontario, Canada

Client: Regional of Halton

Main project features: Tunnelling work for Feedermain

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for Client approve.
- Supply, installation and monitoring fourteen (14) settlement rods (SR), Thirty five (35) Shallow Settlement Points (SSPs), One hundred eighty three (183) Surface Monitoring Points (SMPs), Six (6) Settlement Monitoring Points , Three (3) Deep Monitoring Points and Four (4) deep survey Benchmarks monitoring the ground, highway and railway track movement.

Project 32:

Name of Project: Reconstruction and widening of Bayview Avenue from Elgin Mills Road to Stouffville Road and 19th Avenue from Linda Margaret Crescent to Bayview Avenue, Richmond Hill, Ontario (RE: 15-105).

Location: Richmond Hill, Ontario, Canada

Client: Regional of York

Main project features: Reconstruction and widening of Bayview Avenue

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for owner approve.
- Supply, installation and monitoring twenty eight (28) Settlement Rods, four (4) Structure Monitoring Points (SMPs) and four (4) Tiltmeter (TM) for monitoring the railway bridge.

Project 33:

Name of Project: Jeffery Street Sanitary Sewage Pumping Station Replacement Region of Durham (Contract D2016-028)

Location: Whitby, Ontario, Canada

Client: Regional of Durham

Main project features: Sanitary Sewage Pumping Station Replacement and tunnelling work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Fifty five (55) of Settlement Rod (SR);
- Seventeen (17) Shallow Settlement Monitoring Point (SSM);
- Six (6) Deep Monitoring Benchmarks (DMB);
- Ninety three (93) of Structure Monitoring Point (SMP);
- Eight (8) Deep Settlement Monitoring (DSM).

Project 34:

Name of Project: Rossland Road – Phase 2 Realignment/Reconstruction, Ajax, Ontario (RFT No.T15038).

Location: Ajax, Ontario, Canada

Client: Regional of Durham



Main project features: Road Realignment/Reconstruction

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for owner approve.
- Supply, installation and monitoring one (1) Deep Benchmarks(DBM), four (4) Shallow Settlement Points (SSPs), four (4) Deep Settlement Points(DSPs, two (2) Inclonometers(INCs) and two (2) Vibrating Wire Piezometer (VWPs) for monitoring the Bridge, Shaft, embankment, structures and ground movement.

Project 35:

Name of Project: Humber Sanitary Trunk Sewer Rehabilitation, City of Toronto (Tender Call No. 362- 2015).

Location: Toronto, Ontario, Canada

Client: Toronto Water Department

Main project features: Tunneling and watermain installation

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for owner approve.
- Supply and installation of eleven (11) Bridge/Building Monitoring Points (BMP), sixteen (16) Surface Monitoring Points (SMP), and two (2) Ground Monitoring Points (GMP) to monitor the structures, bridges and highway movement and settlement during the tunnelling work.
- Prepared and installed three (3) real-time vibration stations and two (2) real-time noise monitoring stations

Project 36:

Name of Project: Construction of 900mm Watermain Replacement (Main 2) on Bedford Road from Bernard Avenue to Macpherson Avenue (Contact No. 15ECS-LU-01TT)

Location: Toronto, Ontario, Canada

Client: Toronto Water Department

Main project features: Tunneling and watermain replacement

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for owner approve.
- Supply, installation and monitoring eleven (11) In-Ground Monitoring Points(IGMP), eleven (11) Surface Settlement Markers (SSM), eighty (80) Building (Structure) Settlement Markers(BSM), six (6) Groundwater Level Observation Wells (MW) and thirty-six (36) Settlement Rod for monitoring the railway track (TMP)

Project 37:

Name of Project: Leonard's Beach Sewer Upgrades, Tender# C-17-WW78.16

Location: Bradford, Ontario, Canada

Client: Bradford

Main project features: Sewer Tunneling Construction Work

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for client approve.



- Supply, installation and monitoring forty eight (48) Surface Monitoring Points (SMP), Fifty four (54) Building Monitoring Points (BMP) and Twenty (20) Ground Monitoring Points (GMP) for monitoring the ground and structures.

Project 38:

Name of Project: Watermain on Mount Pleasant Road, Town of Caledon, Project 17-1381

Location: Caledon, Ontario, Canada

Client: Town of Caledon

Main project features: Watermain Tunnelling Construction Work

Activities performed: install and monitoring following instrument

- Prepared the monitoring program for client approve.
- Supply and installation forty four (44) Surface Settlement Points (SSP) and Three (3) Deep Settlement Monitoring Points (DSP) for monitoring the ground and the railway track settlement.

Project 39:

Name of Project: Mannheim Reservoir 1200mm Inlet Twinning, 2056 Ottawa Street South, Kitchener ON (Contract T2017-122)

Location: Kitchener, Ontario, Canada

Client: City of Kitchener

Main project features: Reservoir and Tunnelling work

Activities performed: install and monitoring following instrument

- Prepared monitoring plan for client approve;
- Four (4) of Surface monitoring marker (SMM);
- Two (2) of Ground monitoring points (GMP);
- Two (2) of Deep monitoring points (DMP).